

Analytical Data Package Prepared For  
**Pacific Northwest National Lab**

Radiochemical Analysis By

**STL Richland STLRL**

*2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.*

*Data Package Contains \_\_\_\_\_ Pages*

Report Nbr: 34797

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05114	W07-002	B1M7N9	J7B060116-1	JN0H41AA	9JN0H410	7039579
		B1M7N6	J7B060116-2	JN0H61AA	9JN0H610	7039579
		B1M7N3	J7B060116-3	JN0H71AA	9JN0H710	7039579
		B1M7N0	J7B060116-4	JN0H91AA	9JN0H910	7039579
		B1M8F1	J7B070172-1	JN2X51AA	9JN2X510	7039578
	W05114	B1M8F1	J7B070172-1	JN2X51AC	9JN2X510	7039579
		B1M8D7	J7B070172-2	JN20A1AA	9JN20A10	7039578
		B1M8D7	J7B070172-2	JN20A1AC	9JN20A10	7039579
		B1M8D3	J7B070172-3	JN20Q1AA	9JN20Q10	7039578
		B1M8D3	J7B070172-3	JN20Q1AC	9JN20Q10	7039579
		B1M8C5	J7B070172-4	JN2021AA	9JN20210	7039578
		B1M8C5	J7B070172-4	JN2021AC	9JN20210	7039579
		B1M8C6	J7B070172-5	JN21N1AA	9JN21N10	7039578
		B1M8C6	J7B070172-5	JN21N1AC	9JN21N10	7039579
	W07-002	B1M878	J7B070176-1	JN2101AA	9JN21010	7039575

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05114	W07-002	B1M878	J7B070176-1	JN2101AC	9JN21010	7039577
		B1M878	J7B070176-1	JN2101AD	9JN21010	7039579
		B1M882	J7B070176-2	JN22E1AA	9JN22E10	7039575
		B1M882	J7B070176-2	JN22E1AC	9JN22E10	7039577
		B1M882	J7B070176-2	JN22E1AD	9JN22E10	7039579
		B1M886	J7B070176-3	JN22J1AC	9JN22J10	7039575
		B1M886	J7B070176-3	JN22J1AD	9JN22J10	7039578
		B1M886	J7B070176-3	JN22J1AE	9JN22J10	7039579
		B1M886	J7B070176-3	JN22J4AA	9JN22J40	7082497
		B1M8L7	J7B070176-4	JN22W1AA	9JN22W10	7039575
		B1M8L7	J7B070176-4	JN22W1AC	9JN22W10	7039578
		B1M8L7	J7B070176-4	JN22W1AD	9JN22W10	7039579
		B1M8M5	J7B070198-1	JN28K1AA	9JN28K10	7039575
		B1M8M5	J7B070198-1	JN28K1AC	9JN28K10	7039579
		B1M874	J7B070198-2	JN28P1AA	9JN28P10	7039575
		B1M874	J7B070198-2	JN28P1AC	9JN28P10	7039577
		B1M874	J7B070198-2	JN28P1AD	9JN28P10	7039579
		B1M858	J7B070198-3	JN28R1AA	9JN28R10	7039578
		B1M8M1	J7B070203-1	JN29A1AA	9JN29A10	7039575
		B1M8M1	J7B070203-1	JN29A1AC	9JN29A10	7039577
		B1M8M1	J7B070203-1	JN29A1AD	9JN29A10	7039579
		B1M862	J7B070203-2	JN29J1AC	9JN29J10	7039575
		B1M862	J7B070203-2	JN29J1AD	9JN29J10	7039578
		B1M862	J7B070203-2	JN29J1AE	9JN29J10	7039579
		B1M862	J7B070203-2	JN29J4AA	9JN29J40	7082497
		B1M866	J7B070203-3	JN29P1AA	9JN29P10	7039575

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05114	W07-002	B1M866	J7B070203-3	JN29P1AC	9JN29P10	7039577
		B1M866	J7B070203-3	JN29P1AD	9JN29P10	7039579
		B1M850	J7B070203-4	JN29X1AA	9JN29X10	7039578

Comments:

SEVERN  
TRENT

STL

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## Certificate of Analysis

Pacific Northwest National Laboratories  
Sigma V Building  
Richland, WA 99352

March 27, 2007

Attention: Dot Stewart

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SAF Number	:	W07-002
Date SDG Closed	:	February 6, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05114
Data Deliverable	:	45-Day / Summary

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### CASE NARRATIVE

#### I. Introduction

Between February 5, 2007 and February 6, 2007, twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1M7N9	JN0H4	WATER	2/5/07
B1M7N6	JN0H6	WATER	2/5/07
B1M7N3	JN0H7	WATER	2/5/07
B1M7N0	JN0H9	WATER	2/5/07
B1M8F1	JN2X5	WATER	2/5/07
B1M8D7	JN20N	WATER	2/5/07
B1M8D3	JN20Q	WATER	2/6/07
B1M8C5	JN202	WATER	2/6/07
B1M8C6	JN21N	WATER	2/6/07
B1M878	JN210	WATER	2/6/07
B1M882	JN22E	WATER	2/6/07
B1M886	JN22J	WATER	2/6/07
B1M8L7	JN22W	WATER	2/6/07

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B1M8M5	JN28K	WATER	2/6/07
B1M874	JN28P	WATER	2/6/07
B1M858	JN28R	WATER	2/6/07
B1M8M1	JN29A	WATER	2/6/07
B1M862	JN29J	WATER	2/6/07
B1M866	JN29P	WATER	2/6/07
B1M850	JN29X	WATER	2/6/07

## **II. Sample Receipt**

The samples were received in good condition and no anomalies were noted during check-in.

## **III. Analytical Results/Methodology**

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

### **Gas Proportional Counting**

Gross Beta by method RICH-RC-5014

### **Gamma Spectroscopy**

Gamma Spec (LL) by method RICH-RC-5017

### **Liquid Scintillation Counting**

Technetium-99 by TEVA method RICH-RC-5065

### **Laser Induced Phosphorimetry**

Total Uranium by method RICH-RC-5058

## **IV. Quality Control**

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

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#### V. Comments

##### **Gas Proportional Counting**

###### Gross Beta by method RICH-RC-5014:

Sample B1M886 was analyzed with reduced volumes based on an elevated screen results. The sample does not meet CRDL, but has results greater than the MDA which is greater than the CRDL. The samples were run four times due to an issue causing low yields on the LCS. The issue was corrected and acceptable QC was achieved. The samples on each run had results that agreed within counting statistics. Data is accepted. Except as noted, the LCS, batch blank, samples and sample duplicate (B1M862) results are within contractual requirements.

##### **Gamma Spectroscopy**

###### Gamma Spec (LL) by method RICH-RC-5017:

The LCS, batch blank, samples and sample duplicate (B1M8M1) results are within contractual requirements.

##### **Liquid Scintillation Counting**

###### Technetium-99 by TEVA method RICH-RC-5065:

The samples were analyzed in two batches: 7039577 and 7039578 respectively. In batch 7039577 the LCS, batch blank, samples, sample duplicate (B1M874), and sample matrix spike (B1M866) results are within contractual requirements. In batch 7039578 the LCS, batch blank, samples and sample matrix spike (B1M862) results are within contractual requirements.

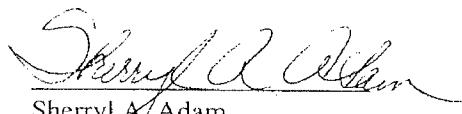
##### **Total Uranium**

###### Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1M7N9), and sample matrix spike (B1M8C6) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:



Sherry A. Adam  
Project Manager

## Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	STL Richland's SOP number
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

## Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship,  $R = \text{constants} * f(x,y,z,...)$ . The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties ( $u_i$ ) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty ( $u_c$ ) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value ( $S/vn$ ), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

## Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) $u_c$ - Combined Uncertainty.	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result. $u_c$ , the combined uncertainty. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \sqrt{2 * (BkgndCnt/BkgndCntMin) / SCntMin}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \sqrt{(BkgndCnt/BkgndCntMin) / SCntMin}) + 2.71 / SCntMin) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the <b>Work Order</b> Number.
RER	The equation Replicate Error Ratio = $(S-D)/[\sqrt{(TPUs^2 + TPUD^2)}]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUD is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

3/27/2007 12:56:20 PM

## STL Richland Report

Lab Code: STLRL

FormNbr: R		FormatType: FEAD		Version: 05		Rpt Nbr: 34797		File Name: h:\Reportdb\edd\FeadiV\Rad\W05114.Edd, h:\Reportdb\edd\FeadiV\Rad\34797.Edd							
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN0H410	B1M7N9		MW6-SBB-A1	W07-002	W05114					02/05/2007 12:08					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039579	Uranium	7440-61-1	7.92E+01	ug/L	9.6E+00	9.6E+00		8.28E-02	UTOT_KPA		2.53E-02	ML	03/20/2007 12:24	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN0H610	B1M7N6		MW6-SBB-A1	W07-002	W05114					02/05/2007 13:32					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039579	Uranium	7440-61-1	1.08E-01	ug/L	1.1E-02	1.1E-02		8.28E-02	UTOT_KPA		2.53E-02	ML	03/20/2007 12:49	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN0H710	B1M7N3		MW6-SBB-A1	W07-002	W05114					02/05/2007 11:17					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039579	Uranium	7440-61-1	5.81E+00	ug/L	5.9E-01	5.9E-01		8.22E-02	UTOT_KPA		2.55E-02	ML	03/20/2007 12:51	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN0H910	B1M7N0		MW6-SBB-A1	W07-002	W05114					02/05/2007 10:34					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039579	Uranium	7440-61-1	1.08E-01	ug/L	1.1E-02	1.1E-02		8.38E-02	UTOT_KPA		2.50E-02	ML	03/20/2007 12:53	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN20210	B1M8C5		MW6-SBB-A1	W05114	W05114					02/06/2007 08:56					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039578	TC-99	14133-76-7	2.77E+02	pCi/L	9.9E+00	2.2E+01		1.03E+01	100.0	TC99_SEP_LSC	1.258E-01	L	02/23/2007 12:23	I	
7039579	Uranium	7440-61-1	6.07E+00	ug/L	6.2E-01	6.2E-01		8.03E-02	UTOT_KPA		2.61E-02	ML	03/20/2007 13:00	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN20A10	B1M8D7		MW6-SBB-A1	W05114	W05114					02/06/2007 09:53					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039578	TC-99	14133-76-7	3.23E+03	pCi/L	3.1E+01	1.9E+02		1.03E+01	100.0	TC99_SEP_LSC	1.251E-01	L	02/23/2007 12:23	I	
7039579	Uranium	7440-61-1	4.50E+00	ug/L	4.6E-01	4.6E-01		8.35E-02	UTOT_KPA		2.51E-02	ML	03/20/2007 12:57	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN20Q10	B1M8D3		MW6-SBB-A1	W05114	W05114					02/06/2007 10:37					

STL Richland

rptFeeRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

3/27/2007 12:56:20 PM

## STL Richland Report

Lab Code: STLRL

FormNbr: R		FormatType: FEAD		Version: 05		Rpt Nbr: 34797		File Name: h:\Reportdb\edd\FeadIV\Rad\W05114.Edd, h:\Reportdb\edd\FeadIV\Rad\34797.Edd							
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039578	TC-99	14133-76-7	2.90E+01	pCi/L	5.1E+00	7.3E+00		1.02E+01	100.0	TC99_SEP_LSC	1.274E-01	L	02/23/2007 12:23	I	
7039579	Uranium	7440-61-1	3.75E+00	ug/L	3.8E-01	3.8E-01		8.32E-02		UTOT_KPA	2.52E-02	ML	03/20/2007 12:58	I	
<hr/>															
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN21010	B1M878		MW6-SBB-A1	W07-002	W05114					02/06/2007 08:25					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039575	BE-7	13966-02-4	7.85E+00	pCi/L	2.3E+01	2.3E+01	U	4.25E+01		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	CO-60	10198-40-0	3.09E+01	pCi/L	9.0E+00	9.0E+00		5.69E+00		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	CS-134	13967-70-9	9.03E-01	pCi/L	2.8E+00	2.8E+00	U	5.35E+00		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	CS-137	10045-97-3	5.10E-01	pCi/L	2.6E+00	2.6E+00	U	4.90E+00		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	EU-152	14683-23-9	1.96E+00	pCi/L	5.9E+00	5.9E+00	U	1.10E+01		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	EU-154	15585-10-1	-5.62E+00	pCi/L	6.6E+00	6.6E+00	U	1.05E+01		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	EU-155	14391-16-3	2.09E+00	pCi/L	4.0E+00	4.0E+00	U	7.36E+00		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	K-40	13966-00-2	-1.95E+01	pCi/L	4.9E+01	4.9E+01	U	1.05E+02		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	RU-106	13967-48-1	-8.74E+00	pCi/L	2.1E+01	2.1E+01	U	3.68E+01		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039575	SB-125	14234-35-6	-6.61E-01	pCi/L	5.1E+00	5.1E+00	U	9.26E+00		GAMMALL_GS	2.0019E+00	L	02/27/2007 11:48	I	
7039577	TC-99	14133-76-7	1.77E+04	pCi/L	7.2E+01	1.2E+03		9.73E+00	100.0	TC99_ETVDSK_LS	1.258E-01	L	02/21/2007 03:35	I	
7039579	Uranium	7440-61-1	1.34E+02	ug/L	1.6E+01	1.6E+01		7.82E-02		UTOT_KPA	2.68E-02	ML	03/20/2007 13:09	I	
<hr/>															
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN21N10	B1M8C6		MW6-SBB-A1	W05114	W05114					02/06/2007 08:56					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039578	TC-99	14133-76-7	2.58E+02	pCi/L	9.6E+00	2.1E+01		1.02E+01	100.0	TC99_SEP_LSC	1.274E-01	L	02/23/2007 12:23	I	
7039579	Uranium	7440-61-1	5.83E+00	ug/L	6.0E-01	6.0E-01		7.91E-02		UTOT_KPA	2.65E-02	ML	03/20/2007 13:02	I	
<hr/>															
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9JN22E10	B1M882		MW6-SBB-A1	W07-002	W05114					02/06/2007 10:03					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039575	BE-7	13966-02-4	5.58E+00	pCi/L	2.1E+01	2.1E+01	U	3.85E+01		GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	CO-60	10198-40-0	4.37E+01	pCi/L	9.2E+00	9.2E+00		3.20E+00		GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	CS-134	13967-70-9	-5.00E-01	pCi/L	2.8E+00	2.8E+00	U	4.93E+00		GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	CS-137	10045-97-3	1.02E+00	pCi/L	2.1E+00	2.1E+00	U	4.16E+00		GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	EU-152	14683-23-9	1.17E+00	pCi/L	5.0E+00	5.0E+00	U	9.28E+00		GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	

STL Richland

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

2

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Report												Lab Code:	STRL	
FormNbr: R		FormatType: FEAD		Version: 05		Rpt Nbr: 34797		File Name: h:\Reportdb\edd\Feadi\V\Rad\W05114.Edd, h:\Reportdb\edd\Feadi\V\Rad\34797.Edd						
7039575	EU-154	15585-10-1	-1.64E+00	pCi/L	6.0E+00	6.0E+00	U	1.11E+01	GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	EU-155	14391-16-3	1.31E+00	pCi/L	4.4E+00	4.4E+00	U	7.87E+00	GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	K-40	13966-00-2	1.93E+01	pCi/L	3.3E+01	3.3E+01	U	7.40E+01	GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	RU-106	13967-48-1	-2.42E+01	pCi/L	2.4E+01	2.4E+01	U	3.74E+01	GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039575	SB-125	14234-35-6	2.51E+00	pCi/L	5.9E+00	5.9E+00	U	9.68E+00	GAMMALL_GS	1.9988E+00	L	02/27/2007 11:48	I	
7039577	TC-99	14133-76-7	2.01E+04	pCi/L	7.7E+01	1.4E+03		9.75E+00	100.0	TC99_ETVDSK_LS	1.259E-01	L	02/21/2007 03:35	I
7039579	Uranium	7440-61-1	2.91E+01	ug/L	3.5E+00	3.5E+00		8.12E-02	UTOT_KPA	2.58E-02	ML	03/20/2007 13:13	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN22J10	B1M886		MW6-SBB-A1	W07-002	W05114					02/06/2007 10:42				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039575	BE-7	13966-02-4	9.06E+00	pCi/L	1.7E+01	1.7E+01	U	3.51E+01	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	CO-60	10198-40-0	-1.29E+00	pCi/L	2.0E+00	2.0E+00	U	3.21E+00	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	CS-134	13967-70-9	8.89E-01	pCi/L	2.4E+00	2.4E+00	U	4.83E+00	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	CS-137	10045-97-3	-1.72E+00	pCi/L	2.3E+00	2.3E+00	U	3.77E+00	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	EU-152	14683-23-9	-3.92E+00	pCi/L	5.4E+00	5.4E+00	U	8.78E+00	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	EU-154	15585-10-1	-3.49E+00	pCi/L	7.3E+00	7.3E+00	U	1.28E+01	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	EU-155	14391-16-3	3.06E+00	pCi/L	4.3E+00	4.3E+00	U	8.38E+00	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	K-40	13966-00-2	-2.85E+00	pCi/L	4.1E+01	4.1E+01	U	9.26E+01	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	RU-106	13967-48-1	-2.25E+00	pCi/L	2.1E+01	2.1E+01	U	3.87E+01	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039575	SB-125	14234-35-6	-2.30E+00	pCi/L	5.6E+00	5.6E+00	U	9.78E+00	GAMMALL_GS	2.0015E+00	L	02/27/2007 11:49	I	
7039578	TC-99	14133-76-7	6.71E+02	pCi/L	1.5E+01	4.5E+01		1.02E+01	100.0	TC99_SEP_LSC	1.272E-01	L	02/23/2007 12:23	I
7039579	Uranium	7440-61-1	3.04E+00	ug/L	3.1E-01	3.1E-01		8.38E-02	UTOT_KPA	2.50E-02	ML	03/20/2007 13:15	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN22J40	B1M886		MW6-SBB-A1	W07-002	W05114					02/06/2007 10:42				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7082497	BETA	12587-47-2	1.49E+02	pCi/L	6.4E+00	2.8E+01		4.62E+00	100.0	9310_ALPHABETA	9.04E-02	L	03/27/2007 08:22	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN22W10	B1M8L7		MW6-SBB-A1	W07-002	W05114					02/06/2007 09:16				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039575	BE-7	13966-02-4	1.43E+01	pCi/L	1.9E+01	1.9E+01	U	3.65E+01	GAMMALL_GS	2.0028E+00	L	02/27/2007 11:49	I	
STL Richland		U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.												
rptFeadRadSummaryEdd v3.48		J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).												
		B Qual- Analyte was found in the associated laboratory blank above the MDC.												

3/27/2007 12:56:20 PM

## STL Richland Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	Version:	05	Rpt Nbr:	34797	File Name:	h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd					
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN28K10	B1M8M5		MW6-SBB-A1	W07-002	W05114					02/06/2007 10:10				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039575	BE-7	13966-02-4	-8.65E+00	pCi/L	1.8E+01	1.8E+01	U	3.08E+01		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	CO-60	10198-40-0	1.38E+00	pCi/L	2.4E+00	2.4E+00	U	5.18E+00		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	CS-134	13967-70-9	-6.52E-01	pCi/L	2.5E+00	2.5E+00	U	4.44E+00		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	CS-137	10045-97-3	6.89E-01	pCi/L	2.4E+00	2.4E+00	U	4.50E+00		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	EU-152	14683-23-9	1.04E+00	pCi/L	5.1E+00	5.1E+00	U	9.47E+00		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	EU-154	15585-10-1	-5.30E-01	pCi/L	6.0E+00	6.0E+00	U	1.18E+01		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	EU-155	14391-16-3	-6.00E-01	pCi/L	3.9E+00	3.9E+00	U	6.88E+00		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	K-40	13966-00-2	-2.77E+01	pCi/L	4.6E+01	4.6E+01	U	9.94E+01		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	RU-106	13967-48-1	6.25E+00	pCi/L	2.0E+01	2.0E+01	U	3.83E+01		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039575	SB-125	14234-35-6	-1.52E+00	pCi/L	5.0E+00	5.0E+00	U	8.86E+00		GAMMALL_GS	2.0009E+00	L	02/27/2007 13:31	I
7039579	Uranium	7440-61-1	4.87E+00	ug/L	5.0E-01	5.0E-01		8.38E-02		UTOT_KPA	2.50E-02	ML	03/20/2007 13:17	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN28P10	B1M874		MW6-SBB-A1	W07-002	W05114					02/06/2007 09:19				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039575	BE-7	13966-02-4	-1.30E+01	pCi/L	1.8E+01	1.8E+01	U	2.97E+01		GAMMALL_GS	1.9952E+00	L	02/27/2007 13:31	I
7039575	CO-60	10198-40-0	9.76E-01	pCi/L	2.5E+00	2.5E+00	U	5.12E+00		GAMMALL_GS	1.9952E+00	L	02/27/2007 13:31	I
7039575	CS-134	13967-70-9	2.13E+00	pCi/L	2.1E+00	2.1E+00	U	4.54E+00		GAMMALL_GS	1.9952E+00	L	02/27/2007 13:31	I
STL Richland				U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.										
rptFeadRadSummaryEdd v3.48				J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).										
				B Qual- Analyte was found in the associated laboratory blank above the MDC.										

3/27/2007 12:56:20 PM

## STL Richland Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	Version:	05	Rpt Nbr:	34797	File Name:	h:\Reportdb\edd\FeadIV\Rad\W05114.Edd, h:\Reportdb\edd\FeadIV\Rad\34797.Edd					
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN26R10	B1M858		MW6-SBB-A1	W07-002	W05114					02/06/2007 11:01				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039578	TC-99	14133-76-7	1.92E+02	pCi/L	8.5E+00	1.7E+01		1.01E+01	100.0	TC99_SEP_LSC	1.275E-01	L	02/23/2007 12:23	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN29A10	B1M8M1		MW6-SBB-A1	W07-002	W05114					02/06/2007 10:24				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039575	BE-7	13966-02-4	1.39E+01	pCi/L	2.1E+01	2.1E+01	U	4.19E+01		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	CO-60	10198-40-0	7.25E+00	pCi/L	3.7E+00	3.7E+00	U	8.46E+00		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	CS-134	13967-70-9	-2.61E-01	pCi/L	2.0E+00	2.0E+00	U	3.88E+00		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	CS-137	10045-97-3	-6.99E-03	pCi/L	2.5E+00	2.5E+00	U	4.70E+00		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	EU-152	14683-23-9	6.01E+00	pCi/L	5.6E+00	5.6E+00	U	1.11E+01		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	EU-154	15585-10-1	2.27E+00	pCi/L	7.6E+00	7.6E+00	U	1.55E+01		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	EU-155	14391-16-3	-4.61E-01	pCi/L	4.2E+00	4.2E+00	U	7.62E+00		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	K-40	13966-00-2	-1.63E+01	pCi/L	4.3E+01	4.3E+01	U	9.40E+01		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	RU-106	13967-48-1	5.69E+00	pCi/L	2.0E+01	2.0E+01	U	3.87E+01		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039575	SB-125	14234-35-6	-1.86E-02	pCi/L	5.5E+00	5.5E+00	U	1.02E+01		GAMMALL_GS	1.9613E+00	L	02/27/2007 13:31	I
7039577	TC-99	14133-76-7	4.46E+03	pCi/L	3.6E+01	3.1E+02		9.63E+00	100.0	TC99_ETVDSK_LS	1.27E-01	L	02/21/2007 03:35	I
7039579	Uranium	7440-61-1	3.17E+02	ug/L	3.9E+01	3.9E+01		8.35E-02		UTOT_KPA	2.51E-02	ML	03/20/2007 13:30	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JN29J10	B1M862		MW6-SBB-A1	W07-002	W05114					02/06/2007 09:39				

3/27/2007 12:56:20 PM

## STL Richland Report

Lab Code: STLRL

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039575	BE-7	13966-02-4	5.23E+00	pCi/L	1.7E+01	1.7E+01	U	3.10E+01		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	CO-60	10198-40-0	-3.21E-01	pCi/L	1.7E+00	1.7E+00	U	3.18E+00		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	CS-134	13967-70-9	4.61E-01	pCi/L	1.6E+00	1.6E+00	U	3.14E+00		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	CS-137	10045-97-3	2.60E-01	pCi/L	1.7E+00	1.7E+00	U	3.24E+00		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	EU-152	14683-23-9	1.61E-01	pCi/L	4.4E+00	4.4E+00	U	7.87E+00		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	EU-154	15585-10-1	-1.08E+00	pCi/L	4.2E+00	4.2E+00	U	7.98E+00		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	EU-155	14391-16-3	-1.27E+00	pCi/L	3.3E+00	3.3E+00	U	5.69E+00		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	K-40	13966-00-2	5.99E+00	pCi/L	2.4E+01	2.4E+01	U	5.37E+01		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	RU-106	13967-48-1	-2.49E+00	pCi/L	1.5E+01	1.5E+01	U	2.74E+01		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039575	SB-125	14234-35-6	2.66E+00	pCi/L	3.8E+00	3.8E+00	U	7.57E+00		GAMMALL_GS	2.0015E+00	L	02/27/2007 15:51	I
7039578	TC-99	14133-76-7	1.92E+02	pCi/L	8.6E+00	1.7E+01		1.02E+01	100.0	TC99_SEP_LSC	1.27E-01	L	02/23/2007 12:23	I
7039579	Uranium	7440-61-1	3.14E+00	ug/L	3.2E-01	3.2E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	03/20/2007 13:32	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume		Sample On Date:			Collection Date:	
9JN29J40	B1M862		MW6-SBB-A1	W07-002	W05114								02/06/2007 09:39	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7082497	BETA	12587-47-2	5.05E+01	pCi/L	3.5E+00	8.5E+00		2.82E+00	100.0	9310_ALPHABETA	2.00E-01	L	03/27/2007 07:32	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume		Sample On Date:			Collection Date:	
9JN29P10	B1M866		MW6-SBB-A1	W07-002	W05114								02/06/2007 08:54	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039575	BE-7	13966-02-4	-1.97E+01	pCi/L	1.9E+01	1.9E+01	U	2.95E+01		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	CO-60	10198-40-0	7.77E+00	pCi/L	2.9E+00	2.9E+00	U	6.53E+00		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	CS-134	13967-70-9	-5.47E-01	pCi/L	2.1E+00	2.1E+00	U	3.64E+00		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	CS-137	10045-97-3	-1.78E-01	pCi/L	1.8E+00	1.8E+00	U	3.21E+00		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	EU-152	14683-23-9	9.00E-01	pCi/L	4.3E+00	4.3E+00	U	7.88E+00		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	EU-154	15585-10-1	7.84E-01	pCi/L	5.1E+00	5.1E+00	U	1.01E+01		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	EU-155	14391-16-3	2.94E+00	pCi/L	3.7E+00	3.7E+00	U	7.04E+00		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	K-40	13966-00-2	8.64E+00	pCi/L	2.8E+01	2.8E+01	U	5.95E+01		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	RU-106	13967-48-1	-7.31E-01	pCi/L	1.5E+01	1.5E+01	U	2.83E+01		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039575	SB-125	14234-35-6	3.53E+00	pCi/L	4.5E+00	4.5E+00	U	8.80E+00		GAMMALL_GS	1.9951E+00	L	02/27/2007 17:36	I
7039577	TC-99	14133-76-7	3.31E+03	pCi/L	3.1E+01	2.3E+02		9.61E+00	100.0	TC99_ETVDSK_LS	1.273E-01	L	02/21/2007 03:35	I

STL Richland

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

3/27/2007 12:56:20 PM

## STL Richland Report

Lab Code: STLRL

FormNbr: R		FormatType: FEAD		Version: 05		Rpt Nbr: 34797		File Name: h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd							
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	UTOT_KPA	2.65E-02	ML	03/20/2007 13:34	I	
9JN29X10	B1M850		MW6-SBB-A1	W07-002	W05114									02/06/2007 08:20	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039578	TC-99	14133-76-7	3.17E+01	pCi/L	5.2E+00	7.6E+00		1.03E+01	100.0	TC99_SEP_LSC	1.252E-01	L	02/23/2007 12:23	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:					Collection Date:	
9JN2X510	B1M8F1		MW6-SBB-A1	W05114	W05114									02/06/2007 11:27	
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7039578	TC-99	14133-76-7	8.26E+01	pCi/L	6.5E+00	1.1E+01		1.03E+01	100.0	TC99_SEP_LSC	1.26E-01	L	02/23/2007 12:23	I	
7039579	Uranium	7440-61-1	6.07E+00	ug/L	6.2E-01	6.2E-01		7.70E-02		UTOT_KPA	2.72E-02	ML	03/20/2007 12:55	I	

Tuesday, March 27, 2007

## STL Richland QC Blank Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd		
Lab Sample Id:	JN6JM1AB	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 10:24		
Client Id:	NA	Matrix:	WATER	WATER		Sample On Date:			
Moisture/Solids%*:			QC Type:	BLK		Received Date:	02/06/2007		

SAF Nbr	Contract Nbr MW6-SBB-A19981	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume		File Id	FSuffix	RTyp				
							BD	H							
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039575 BE-7 BLK 13966-02-4	-4.27E-01	pCi/L	1.9E+01 1.9E+01	U	3.45E+01				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 CO-60 BLK 10198-40-0	-1.64E+00	pCi/L	2.3E+00 2.3E+00	U	3.87E+00				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 CS-134 BLK 13967-70-9	-4.10E-01	pCi/L	2.4E+00 2.4E+00	U	4.33E+00				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 CS-137 BLK 10045-97-3	-4.54E-01	pCi/L	2.7E+00 2.7E+00	U	4.72E+00				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 EU-152 BLK 14683-23-9	-4.91E+00	pCi/L	5.6E+00 5.6E+00	U	9.09E+00				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 EU-154 BLK 15585-10-1	3.75E+00	pCi/L	5.7E+00 5.7E+00	U	1.29E+01				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 EU-155 BLK 14391-16-3	2.11E-01	pCi/L	3.6E+00 3.6E+00	U	6.55E+00				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 K-40 BLK 13966-00-2	2.59E+01	pCi/L	6.3E+01 6.3E+01	U	3.39E+01				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 RU-106 BLK 13967-48-1	-6.77E+00	pCi/L	2.0E+01 2.0E+01	U	3.56E+01				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D
7039575 SB-125 BLK 14234-35-6	3.65E-01	pCi/L	5.1E+00 5.1E+00	U	9.58E+00				GAMMALL_GS	2.001E+00 L	02/27/2007 18:09				D

Tuesday, March 27, 2007

## STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd

Lab Sample Id: JN6JQ1AB

Sdg/Rept Nbr: W05114

34797

Collection Date: 02/06/2007 08:54

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp	
	MW6-SBB-A19981								BF	H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	
7039577	TC-99	5.94E-01	pCi/L	3.8E+00 2.5E+00	U	6.07E+00	100.0	TC99_ETVDSK	2.018E-01	02/21/2007 L 03:35	D
BLK	14133-76-7										

Tuesday, March 27, 2007

## STL Richland QC Blank Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Feadl\V\Rad\W05114.Edd, h:\Reportdb\edd\Feadl\V\Rad\34797.Edd		
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Lab Sample Id:	JN6JR1AB	Sdg/Rept Nbr:	W05114	34797	Collection Date:	02/06/2007 09:39		
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Client Id:	NA	Matrix:	WATER	WATER	Sample On Date:			
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Moisture/Solids%*:		QC Type:	BLK	Received Date:	02/06/2007		
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SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039578	TC-99	6.82E-01	pCi/L	5.8E+00	U	1.04E+01	100.0		TC99_SEP_LS	1.255E-01	02/23/2007			D	
BLK	14133-76-7			4.3E+00					L		12:23				

Tuesday, March 27, 2007

## STL Richland QC Blank Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\FeadIV\Rad\W05114.Edd, h:\Reportdb\edd\FeadIV\Rad\34797.Edd								
Lab Sample Id:	JN6JT1AB	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 08:56								
Client Id:	NA	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	BLK			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BJ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039579	Uranium	1.83E-02	ug/L	2.3E-03	U	8.19E-02		UTOT_KPA		2.56E-02	03/20/2007				D
BLK	7440-61-1			2.3E-03						ML	12:15				

Tuesday, March 27, 2007

## STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd

Lab Sample Id: JRN1K1AB

Sdg/Rept Nbr: W05114

34797

Collection Date: 02/06/2007 09:39

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BM	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7082497 BLK	BETA 12587-47-2	1.23E+00	pCi/L	9.5E-01 9.4E-01	U	1.78E+00	100.0		9310_ALPHAB	2.001E-01 L	03/27/2007 08:22				D

Tuesday, March 27, 2007

## STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd

Lab Sample Id: JN6JM1CS

Sdg/Rept Nbr: W05114

34797

Collection Date: 02/06/2007 10:24

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039575 BS	CO-60 10198-40-0	3.36E+01	pCi/L	8.8E+00 8.8E+00		6.53E+00		3.78E+01 88.8	GAMMALL_GS	2.00E+00 L	02/27/2007 17:36			70 130	D
7039575 BS	CS-137 10045-97-3	2.13E+01	pCi/L	6.6E+00 6.6E+00		5.05E+00		2.49E+01 85.2	GAMMALL_GS	2.00E+00 L	02/27/2007 17:36			70 130	D
7039575 BS	EU-152 14683-23-9	6.87E+01	pCi/L	1.6E+01 1.6E+01		1.18E+01		7.65E+01 89.8	GAMMALL_GS	2.00E+00 L	02/27/2007 17:36			70 130	D

Tuesday, March 27, 2007

## STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\FeadIV\Rad\W05114.Edd, h:\Reportdb\edd\FeadIV\Rad\34797.Edd								
Lab Sample Id:	JN6JQ1CS	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 08:54								
Client Id:	NA	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:			QC Type:	BS		Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BG	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039577	TC-99	3.32E+02	pCi/L	2.6E+01		6.21E+00	100.0	3.39E+02	TC99_ETVDSK	2.011E-01	02/21/2007			70	D
BS	14133-76-7			8.3E+00				97.8		L	03:35			130	

Tuesday, March 27, 2007

## STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd								
Lab Sample Id:	JN6JR1CS	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 09:39								
Client Id:	NA	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	BS			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSSuffix	RTyp					
	MW6-SBB-A19981								BI	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039578	TC-99	4.88E+02	pCi/L	3.4E+01		1.03E+01	100.0	5.42E+02	TC99_SEP_LS	1.256E-01	02/23/2007			70	D
BS	14133-76-7			1.3E+01				90.1		L	12:23			130	

Tuesday, March 27, 2007

## STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Feadi\V\Rad\W05114.Edd, h:\Reportdb\edd\Feadi\V\Rad\34797.Edd								
Lab Sample Id:	JN6JT1CS	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 08:56								
Client Id:	NA	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	BS			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BK	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039579	Uranium	3.50E+01	ug/L	4.3E+00		8.19E-02		3.51E+01	UTOT_KPA	2.56E-02	03/20/2007			70	D
BS	7440-61-1			4.3E+00				99.6		ML	12:20			130	

Tuesday, March 27, 2007

## STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd								
Lab Sample Id:	JN6JT1DS	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 08:56								
Client Id:	NA	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	BS			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp	BL	H			
	MW6-SBB-A19981														
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039579 BS	Uranium 7440-61-1	3.50E+00	ug/L	3.6E-01 3.6E-01		8.32E-02		3.60E+00 97.1	UTOT_KPA	2.52E-02 ML	03/20/2007 12:22			70 130	D

Tuesday, March 27, 2007

## STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd								
Lab Sample Id:	JRN1K1CS	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 09:39								
Client Id:	NA	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	BS			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BN	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7082497 BS	BETA 12587-47-2	2.19E+01	pCi/L	3.2E+00 1.7E+00		1.89E+00	100.0	2.25E+01 97.2	9310_ALPHAB	1.997E-01 L	03/27/2007 08:22			70 130	D

Tuesday, March 27, 2007

## STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name: h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd									
Lab Sample Id:	JN0H41CR	Sdg/Rept Nbr:	W05114	34797					Collection Date:	02/05/2007 12:08					
Client Id:	B1M7N9	Matrix:	WATER	WATER					Sample On Date:						
Moisture/Solids%*:					QC Type:	DUP					Received Date:	02/05/2007			
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume		File Id	FSuffix	RTyp				
W07-002	MW6-SBB-A19981									AW	H				
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039579	Uranium	7.87E+01	ug/L	9.6E+00		8.28E-02			UTOT_KPA	2.53E-02	03/20/2007	.6	0.1		D
DUP	7440-61-1	7.92E+01		9.6E+00						ML	12:39	20.0	3		

Tuesday, March 27, 2007

## STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\V\Rad\W05114.Edd, h:\Reportdb\edd\Fead\V\Rad\34797.Edd

Lab Sample Id: JN28P1ER

Sdg/Rept Nbr: W05114 34797

Collection Date: 02/06/2007 09:19

Client Id: B1M874

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039577	TC-99	1.40E+04	pCi/L	9.6E+02		9.69E+00	100.0		TC99_ETVDSK	1.263E-01	02/21/2007	2.5	0.5		D
DUP	14133-76-7	1.44E+04		6.4E+01						L	03:35	20.0	3		

Tuesday, March 27, 2007

## STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name: h:\Reportdb\edd\FeadIV\Rad\W05114.Edd, h:\Reportdb\edd\FeadIV\Rad\34797.Edd									
Lab Sample Id:	JN29A1ER	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 10:24								
Client Id:	B1M8M1	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	DUP			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp	AZ	H			
W07-002	MW6-SBB-A19981														
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Allq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039575 BE-7	-8.83E-01	pCi/L	1.4E+01	U	2.61E+01				GAMMALL_GS	1.9567E+00	02/27/2007	227.2	1.5		D
DUP 13966-02-4	1.39E+01		1.4E+01							L	13:32	20.0	3		
7039575 CO-60	8.03E+00	pCi/L	3.0E+00		2.90E+00				GAMMALL_GS	1.9567E+00	02/27/2007	10.2	0.4		D
DUP 10198-40-0	7.25E+00		3.0E+00							L	13:32	20.0	3		
7039575 CS-134	1.30E+00	pCi/L	1.9E+00	U	3.87E+00				GAMMALL_GS	1.9567E+00	02/27/2007	300.6	1.1		D
DUP 13967-70-9	-2.61E-01		1.9E+00							L	13:32	20.0	3		
7039575 CS-137	-6.56E-01	pCi/L	1.7E+00	U	3.05E+00				GAMMALL_GS	1.9567E+00	02/27/2007	0.0	0.5		D
DUP 10045-97-3	-6.99E-03		1.7E+00							L	13:32	20.0	3		
7039575 EU-152	2.41E+00	pCi/L	4.5E+00	U	8.38E+00				GAMMALL_GS	1.9567E+00	02/27/2007	85.4	1.1		D
DUP 14683-23-9	6.01E+00		4.5E+00							L	13:32	20.0	3		
7039575 EU-154	8.47E-02	pCi/L	4.6E+00	U	9.11E+00				GAMMALL_GS	1.9567E+00	02/27/2007	185.6	0.7		D
DUP 15585-10-1	2.27E+00		4.6E+00							L	13:32	20.0	3		
7039575 EU-155	-1.15E+00	pCi/L	3.8E+00	U	6.65E+00				GAMMALL_GS	1.9567E+00	02/27/2007	0.0	0.3		D
DUP 14391-16-3	-4.61E-01		3.8E+00							L	13:32	20.0	3		
7039575 K-40	3.75E+01	pCi/L	3.1E+01	U	6.88E+01				GAMMALL_GS	1.9567E+00	02/27/2007	509.3	2.5		D
DUP 13966-00-2	-1.63E+01		3.1E+01							L	13:32	20.0	3		
7039575 RU-106	4.00E+00	pCi/L	1.7E+01	U	3.13E+01				GAMMALL_GS	1.9567E+00	02/27/2007	34.8	0.1		D
DUP 13967-48-1	5.69E+00		1.7E+01							L	13:32	20.0	3		
7039575 SB-125	3.78E+00	pCi/L	4.5E+00	U	8.85E+00				GAMMALL_GS	1.9567E+00	02/27/2007	202.0	1.2		D
DUP 14234-35-6	-1.86E-02		4.5E+00							L	13:32	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.  
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).  
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Tuesday, March 27, 2007

## STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Feadl\V\Rad\W05114.Edd, h:\Reportdb\edd\Feadl\V\Rad\34797.Edd								
Lab Sample Id:	JN29J1JR	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 09:39								
Client Id:	B1M862	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	DUP			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp	BB	H			
W07-002	MW6-SBB-A19981														
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7082497 DUP	BETA 12587-47-2	5.60E+01 5.05E+01	pCi/L	1.1E+01 3.6E+00		2.75E+00	100.0		9310_ALPHAB	2.007E-01 L	03/27/2007 07:32	10.4 20.0	0.7 3		D

Tuesday, March 27, 2007

## STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd								
Lab Sample Id:	JN21N1DW	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 08:56								
Client Id:	B1M8C6	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	MS			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W05114	MW6-SBB-A19981								AX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039579	Uranium	3.40E+01	ug/L	4.9E+00		7.94E-02		3.42E+01	UTOT_KPA	2.64E-02	03/20/2007			60	D
MS	7440-61-1			4.9E+00				99.3		ML	13:04			140	

Tuesday, March 27, 2007

## STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Fead\Rad\W05114.Edd, h:\Reportdb\edd\Fead\Rad\34797.Edd								
Lab Sample Id:	JN29J1GW	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 09:39								
Client Id:	B1M862	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	MS			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-002	MW6-SBB-A19981								BA	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039578	TC-99	3.34E+03	pCi/L	2.0E+02		1.03E+01	100.0	3.66E+03	TC99_SEP_LS	1.254E-01	02/23/2007			60	D
MS	14133-76-7			3.2E+01				91.3		L	12:23			140	

Tuesday, March 27, 2007

## STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr:	R	FormatType:	FEAD	VersionNbr:	05	File Name:	h:\Reportdb\edd\Fead\IV\Rad\W05114.Edd, h:\Reportdb\edd\Fead\IV\Rad\34797.Edd								
Lab Sample Id:	JN29P1EW	Sdg/Rept Nbr:	W05114	34797		Collection Date:	02/06/2007 08:54								
Client Id:	B1M866	Matrix:	WATER	WATER		Sample On Date:									
Moisture/Solids%*:		QC Type:	MS			Received Date:	02/06/2007								
SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-002	MW6-SBB-A19981								BC	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039577	TC-99	3.51E+03	pCi/L	5.2E+02		9.75E+00	100.0	3.65E+03	TC99_ETVDSK	1.255E-01	02/21/2007			60	D
MS	14133-76-7			4.5E+01				96.3		L	03:35			140	

Lot No., Due Date: J7B070176,J7B070203; 03/23/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7082497; RBETA-SR Beta by GPC-Sr/Y  
 SDG, Matrix: W05114; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JN22J4AA 90.40<200.00 Q:VB	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBLks) found in Batch!	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPC)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	✓		
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	✓		
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JN22J4AA BETA 4.6E+00>4.0E+00 Q:C1	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	✓		
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JN22J4AA BETA 1.5E+02 L:4.6E+00 JN29J4AA BETA 5.0E+01 L:2.8E+00	✓		
8.23 Result < Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	✓		

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments: <i>NCM - 10-09641</i>			
8.31 Results Blank Subtracted as Appropriate. OK	Yes	No	N/A

First Level Review

Date *3/27/07*

STL Richland

OAS\_RADCALC\4.8.26

STL RICHLAND

Page 2

**SEVERN**  
**TERNENT**

**STL**

Data Review Checklist  
RADIOCHEMISTRY  
Second Level Review

OC Batch Number:

7082497  
W05114

Review Item	Yes (✓)	No (✗)	N/A (✗)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			
9. Do the duplicate sample results and yields meet acceptance criteria?			✓
C. Other			
1. Are all Nonconformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

See NCR

Second Level Review:

*Sherry A. Wilson*

Date: 3-27-07

# Clouseau Nonconformance Memo

SEVERN  
TRENT  
SERVICES

NCM #: **10-09641**  
NCM Initiated By: Lisa Antonson  
Date Opened: 03/27/2007  
Date Closed:

Classification: **Anomaly**  
Status: **GLREVIEW**  
Production Area: Environmental - Prep  
Tests: Beta by GPC-Sr/Y  
Lot #'s (Sample #'s): J7B070176 (3), J7B070203 (2), J7C230000 (497),  
QC Batches: 7082497

Nonconformance: Other (describe in detail)  
Subcategory: Other (explanation required)

## Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	03/27/2007	<ol style="list-style-type: none"><li>1. Sample JN22J4AA didn't meet CRDL due to reduced aliquot based on weight screen. Result exceeds MDA achieved.</li><li>2. Samples were run four times due to an issue causing low yeilds on the LCS. The issue was corrected, and acceptable QC was achieved. The samples on each run had results that agreed within counting statistics. Data accepted.</li></ol>

## Corrective Action

Name	Date	Corrective Action
Lisa Antonson	03/27/2007	Report data found.

## Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response		Response Note		

## Quality Assurance Verification

Verified By	Due Date	Status	Notes
This section not yet completed by QA.			

## Approval History

Date Approved	Approved By	Position
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SEVERN  
TRENT

STL

Data Review/Verification Checklist  
RADIOCHEMISTRY, First Level Review

2/28/2007 11:05:26 AM

Lot No., Due Date: J7B070176, J7B070198, J7B070203; 03/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039575; RGAMMA Gamma by GER

SDG, Matrix: W05114; WATER

**1.0 COC**

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes No N/A

**2.0 QC Batch**

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?

Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch?

Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes No N/A

**3.0 QC & Samples**

3.1 Is the blank results, yield, and MDA within contract limits?

Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A

3.5 Are the sample yields and MDAs within contract limits?

Yes No N/A

**4.0 Raw Data**

4.1 Were results calculated in the correct units?

Yes No N/A

4.2 Were analysis volumes entered correctly?

Yes No N/A

4.3 Were Yields entered correctly?

Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements?

Yes No N/A

4.5 Were raw counts reviewed for anomalies?

Yes No N/A

**5.0 Other**

5.1 Are all nonconformances included and noted?

Yes No N/A

5.2 Are all required forms filled out?

Yes No N/A

5.3 Was the correct methodology used?

Yes No N/A

5.4 Was transcription checked?

Yes No N/A

5.5 Were all calculations checked at a minimum frequency?

Yes No N/A

5.6 Are worksheet entries complete and correct?

Yes No N/A

6.0 Comments on any No response:

Yes No N/A

First Level Review

STL Richland

QAS\_RADCALCv4.8.26

STL RICHLAND

Date

2/28/07

Page 1



STL

Data Review Checklist  
RADIOCHEMISTRY  
Second Level Review

QC Batch Number: 7039575  
W05114

Review Item	Yes (✓)	No (✗)	N/A (✗)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result $\leq$ the Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result $<$ the Contract Detection Limit?	✓		
4. Is the blank result $>$ the Contract Detection Limit but the sample result $<$ the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity $\leq$ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?			
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

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Second Level Review:

Date: 2-28-07

Lot No., Due Date: J7B070176,J7B070198,J7B070203; 03/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039577; RTC99 Tc-99 by LSC

SDG, Matrix: W05114; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JN29P1AE TCSG<>TCSE Q:V9	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBLks) found in Batch!	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	✓		
8.16 MS with 1 Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	✓		
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc. JDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99	✓		
OK; No Action Level Found => TC-99			
8.24 Result + 3s >= 0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	✓		

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A

8.3 Comments:

8.31 Results Blank Subtracted as Appropriate. OK	Yes	No	N/A
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First Level Review

Date

2/21/07

STL Richland

QAS RADCALCv4.8.26

STL RICHLAND

Page 2

**SEVERN  
TRENT**

**STL**

Data Review Checklist  
**RADIOCHEMISTRY**  
Second Level Review

QC Batch Number:

7039577  
W05114

Review Item	Yes (✓)	No (✗)	N/A (✗)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✗		
3. Are the correct isotopes reported?	✗		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result $\leq$ the Contract Detection Limit?	✗		
2. Does the blank result meet the Contract criteria?	✗		
3. Is the blank result $<$ the Contract Detection Limit?	✗		
4. Is the blank result $>$ the Contract Detection Limit but the sample result $<$ the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity $\leq$ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

*Henry R. Klein*

Date: 2-23-07

Lot No., Due Date: J7B070172,J7B070176,J7B070198,J7B070203; 03/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039578; RTC99 Tc-99 by LSC

SDG, Matrix: W07-002,W05114; WATER

**1.0 COC**

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes  No  N/A **2.0 QC Batch**

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?

Yes  No  N/A 

2.2 Are the QC appropriate for the analysis included in the batch?

Yes  No  N/A 

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes  No  N/A 

2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes  No  N/A **3.0 QC & Samples**

3.1 Is the blank results, yield, and MDA within contract limits?

Yes  No  N/A 

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes  No  N/A 

3.3 Are the MS/MSD results, yields, and MDAs within contract limits?

Yes  No  N/A 

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes  No  N/A 

3.5 Are the sample yields and MDAs within contract limits?

Yes  No  N/A **4.0 Raw Data**

4.1 Were results calculated in the correct units?

Yes  No  N/A 

4.2 Were analysis volumes entered correctly?

Yes  No  N/A 

4.3 Were Yields entered correctly?

Yes  No  N/A 

4.4 Were spectra reviewed/meet contractual requirements?

Yes  No  N/A 

4.5 Were raw counts reviewed for anomalies?

Yes  No  N/A **5.0 Other**

5.1 Are all nonconformances included and noted?

Yes  No  N/A 

5.2 Are all required forms filled out?

Yes  No  N/A 

5.3 Was the correct methodology used?

Yes  No  N/A 

5.4 Was transcription checked?

Yes  No  N/A 

5.5 Were all calculations checked at a minimum frequency?

Yes  No  N/A 

5.6 Are worksheet entries complete and correct?

Yes  No  N/A 

6.0 Comments on any No response:

Yes  No  N/A 

First Level Review

Date

2/23/07



STL

Data Review Checklist  
RADIOCHEMISTRY  
Second Level Review

QC Batch Number:

703518  
W05114

Review Item	Yes (✓)	No (✗)	N/A (✗)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result $\leq$ the Contract Detection Limit?			
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity $\leq$ the Contract Detection Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?			✓
C. Other			
1. Are all Nonconformances included and noted?			
2. Are all required forms filled out?		✓	
3. Was the correct methodology used?		✓	
4. Was transcription checked?		✓	
5. Were all calculations checked at a minimum frequency?		✓	
6. Were units checked?		✓	

Comments on any "No" response:

Second Level Review

Date: 2-26-07



STL

Data Review/Verification Checklist  
RADIOCHEMISTRY, First Level Review

3/21/2007 2:30:24 PM

Lot No., Due Date: J7B060116,J7B070172,J7B070176,J7B070198,J7B070203; 03/22/2007,03/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039579; RUNAT UNat by KPA

SDG, Matrix: W05114,W07-002; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JN6JT1AD UNSC<>UNSF Q:V9	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used No Count Analysis Size found in Batch Data!	✓		✓
8.07 The Correct Count Geometry was Used. No Count Geometry found in Batch Data!	✓		✓
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No Count Duration Field Found in Batch Data!	✓		✓
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBLks) found in Batch!	✓		✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	✓		✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!	✓		✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	✓		✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	✓		✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JN0H41AA Uranium 7.9E+01 L:8.3E-02 JN0H61AA Uranium 1.1E-01 L:8.3E-02 JN0H71AA Uranium 5.8E+00 L:8.2E-02 JN0H91AA Uranium 1.1E-01 L:8.4E-02 JN2021AC Uranium 6.1E+00 L:8.0E-02 JN20A1AC Uranium 4.5E+00 L:8.3E-02 JN20Q1AC Uranium 3.8E+00 L:8.3E-02 JN2101AD Uranium 1.3E+02 L:7.8E-02 JN21N1AC Uranium 5.8E+00 L:7.9E-02 JN22E1AD Uranium 2.9E+01 L:8.1E-02 JN22J1AE Uranium 3.0E+00 L:8.4E-02 JN22W1AD Uranium 4.9E+00 L:8.4E-02	✓		✓

JN28K1AC Uranium 7.4E+00 L:7.5E-02  
JN28P1AD Uranium 7.9E+02 L:7.7E-02  
JN29A1AD Uranium 3.2E+02 L:8.3E-02  
JN29J1AE Uranium 3.1E+00 L:8.3E-02  
JN29P1AD Uranium 2.5E+01 L:7.9E-02  
JN2X51AC Uranium 6.1E+00 L:7.7E-02

8.23 Result <= Action Level, when Defined.  
OK: No Action Level Found => Uranium

Yes  No  N/A

OK; No Callin Level Found => Uranium  
8.24 Result + 3s >=0, Not Too Negative.

Yes  No  N/A

OK  
8.25 Counting Spectrum are within FWHM Limits.  
No FWHM found in Batch Data!

Yes  No  N/A

8.26 Instruments have Current Calibrations.

Yes  No  N/A

8.27 Correct Count Library Used.  
No Count Library found in Batch Data!

Yes  No  N/A

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes  No  N/A

8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes  No  N/A

8.3 Comments:

8.31 Results Blank Subtracted as Appropriate.  
OK

Yes  No  N/A

First Level Review

*Pam Anderson*

Date 3-24-07

STL Richland

QAS RADCALv4.8.26

STL RICHLAND

Page 2

**SEVERN  
TRENT**

**STL**

Data Review Checklist  
**RADIOCHEMISTRY**  
Second Level Review

QC Batch Number:

7039579  
W05114

Review Item	Yes (✓)	No (✗)	N/A (✗)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

*Berry L. Kelam*

Date: 3-21-07

PNNL JT8060116 WU 5114 due 03-22-07		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					C.O.C. # <b>W07-002-570</b>
					Page <u>1</u> of <u>1</u>		
Collector <b>K. Hulse</b>	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX			
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code					
Project Title RCRA FEBRUARY 2007	Log book'. HNF-N-S06-4	Ice Chest No. SML-S62	Temp.				
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No. <i>n/a</i>					
Protocol RCRA	Priority: 45 Days	Offsite Property No. <i>n/a</i>					
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			SPECIAL INSTRUCTIONS		Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
			All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.				
			WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.				

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1M7N9		W	2/5/07	1208	1x20-mL P	Activity Scan	None
B1M7N9		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JNOH4	

Relinquished By <i>K. Hulse JT8060116</i>	Print <i>K. Hulse</i>	Sign <i>FEB 05 2007</i>	Date/Time 1410	Received By <i>E. Derby</i>	Print <i>E. Derby</i>	Sign <i>FEB 05 2007</i>	Date/Time 1410	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)					Disposed By		Date/Time

PNNL J78060116  
W05114  
Due 03-22-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. #  
**W07-002-576**

Relinquished By <i>KB Hulse</i>	Print <i>KB Hulse</i>	Sign <i>KB Hulse</i>	Date/Time <i>FEB 05 2007</i>	Received By <i>Eric Darby</i>	Print <i>Eric Darby</i>	Sign <i>Eric Darby</i>	Date/Time <i>FEB 05 2007</i>	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil DS = Drum Solid SF = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

PNNL JTB 060116 W05114 due 03-22-07		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			C.O.C. # <b>W07-002-582</b>
			Page 1 of 1		
Collector <i>K. Hulse</i>	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX	
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code			
Project Title RCRA FEBRUARY 2007	Logbook: HNF-N-506-4			Ice Chest No. SML-562 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No. <i>N/A</i>			
Protocol RCRA	Priority: 45 Days			Offsite Property No. <i>N/A</i>	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			SPECIAL INSTRUCTIONS      Hold Time      Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1M7N3		W	<i>2/5/07</i>	<i>1117</i>	1x20-mL P	Activity Scan	None
B1M7N3		W	<i>V</i>	<i>V</i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						<i>JNOH7</i>	

Relinquished By <i>K.S. Hulse</i>	Print <i>J.B. Hale</i>	Sign <i>FEB 05 2007</i>	Date/Time <i>1410</i>	Received By <i>E. Daly</i>	Print <i>Eric Darby</i>	Sign <i>FEB 05 2007</i>	Date/Time <i>1410</i>	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil      DS = Drum Solid SE = Sediment      DL = Drum Liquid SO = Solid      T = Tissue SL = Sludge      WI = Wine W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

PNNL JTB060116  
W05114  
Due 03-22-0

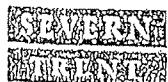
## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # W07-002-588

Page 1 of 1

Collector K. Hulse	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA FEBRUARY 2007	Logbook: HNF-N-S06-4	Ice Chest No.	SMC-S02	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No. W/1		
Protocol RCRA	Priority: 45 Days	Offsite Property No. W/1		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> Hold Time      Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		

Relinquished By <b>K. Hulse</b>	Print <i>KB Hulse</i>	Sign	Date/Time <b>FEB 05 2007</b>	Received By <i>Eric Dorley</i>	Print	Sign	Date/Time <b>FEB 05 2007</b>	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil SF = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By			Date/Time	Received By			Date/Time	DS = Drum Solid DL = Drum Liquid T = Tissue W1 = Wine L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	



STL

## Sample Check-in List

Date/Time Received: 2/5/07Client: PNLSDG #: W05114 NA  SAF #: W07-002 NA Work Order Number: JTB060116Chain of Custody #: W07-002-570,576,582,588

Shipping Container ID:

Air Bill # \_\_\_\_\_

1. Custody Seals on shipping container intact? NA  Yes  No
2. Custody Seals dated and signed? NA  Yes  No
3. Chain of Custody record present? NA  Yes  No
4. Cooler temperature: NA  5. Vermiculite/packing materials is NA  Wet  Dry
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA  Yes  No
8. Samples have:
  - tape
  - custody seals
  - hazard labels
  - appropriate samples labels
9. Samples are:
  - in good condition
  - broken
  - leaking
  - have air bubbles

(Only for samples requiring head space)
10. Sample pH taken? NA  pH<2  pH>2  pH>9
11. Sample Location, Sample Collector Listed?  
\*For documentation only. No corrective action needed. Yes  No
12. Were any anomalies identified in sample receipt? Yes  No
13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian:

Eve Darby

Date:

2/5/07 1410

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_

Person contacted \_\_\_\_\_

 No action necessary; process as is.

Project Manager \_\_\_\_\_

Date \_\_\_\_\_

PNNL JTB070172  
W03114  
Date 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. #  
**W07-002-114**

Collector FLUOR HANFORD M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA FEBRUARY 2007	HWF - N - 506 3	Ice Chest No.	Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol RCRA	Priority: 45 Days	Offsite Property No.		
<b>Possible Sample Hazards/Remarks</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		<b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Relinquished By <b>M.R. WEIL</b>	Print <i>M.R. Weil</i>	Sign 	Date/Time <b>FEB 06 2007</b>	Received By <i>Eric Derby</i>	Print <i>Eric Derby</i>	Sign 	Date/Time <b>FEB 06 2007</b>	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	

SPNNL	JTB070172 W07114 Due 03.23.07 FLUOR HANFORD	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			C.O.C. #  W07-002-120
			Page 1 of 1		
Collector	M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No.	W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title	RCRA FEBRUARY 2007	HWF-N-506 3	Ice Chest No.	Ros	Temp.
Shipped To (Lab)	Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol	RCRA	Priority: 45 Days	Offsite Property No.		
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Relinquished By <b>FLUOR HANFORD</b> M.R. WEIL	Print 	Sign	Date/Time <b>FEB 06 2007</b>	Received By <b>ZI DUNY ERIC DARBY</b>	Print	Sign	Date/Time <b>FEB 06 2007</b>	Matrix *
Relinquished By		Date/Time		Received By		Date/Time		S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Waste W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	

C  
S  
P

PNNL JTB070172  
W05114  
Due 03-23-07  
SEARCHED

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

1603

W07-002-126

Page 1 of 1

Collector M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA FEBRUARY 2007	HNF-N-SOG 3	Ice Chest No.	1055	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol RCRA	Priority: 45 Days	Offsite Property No.		
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Relinquished By <b>M.R. WEIL</b>			Date/Time <b>FEB 06 2007</b>	Received By <i>Eric Dally</i>	Date/Time <b>FEB 06 2007</b>	Print	Sign	Matrix *	
Relinquished By			Date/Time	Received By	Date/Time			S = Soil	DS = Drum Solid
								SE = Sediment	DL = Drum Liquid
								SO = Solid	T = Tissue
								SL = Sludge	WI = Wine
								W = Water	L = Liquid
								O = Oil	V = Vegetation
								A = Air	X = Other
Relinquished By			Date/Time	Received By	Date/Time				
Relinquished By			Date/Time	Received By	Date/Time				
Relinquished By			Date/Time	Received By	Date/Time				
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

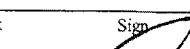
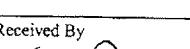
STL RICHLAND

PNNL J7B07017A  
W05114  
due 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. #	W07-002-132
Page 1 of 1	

Collector FLUOR HANFORD M.R. WEIL		Contact/Requester Dot Stewart	Telephone No. 509-376-5056	Page 1 of 1
SAF No. W07-002		Sampling Origin Hanford Site	MSIN FAX	
Project Title RCRA FEBRUARY 2007		HNF -IV - 506 3	Purchase Order/Charge Code	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Vehicle	Ice Chest No. R07	Temp.
Protocol RCRA		Priority: 45 Days	Bill of Lading/Air Bill No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Relinquished By <b>FLUOR HANFORD</b> M.R. WEIL	Print <i>M.R. Weil</i>	Sign 	Date/Time 1315	Received By <i>Eric Derby</i>	Print <i>Eric Derby</i>	Sign 	Date/Time 1315	Matrix *
Relinquished By	Date/Time	Received By				Date/Time	S = Soil SF = Sediment SO = Solid SI = Sludge W = Water O = Oil A = Air	DS = Drum Solid DL = Drum Liquid T = Tissue WI = Wine L = Liquid V = Vegetation X = Other
Relinquished By	Date/Time	Received By				Date/Time		
Relinquished By	Date/Time	Received By				Date/Time		
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

PNNL JTB070172 W05114 Dec 03 23:07		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # <b>W07-002-133</b>
				Page <b>1</b> of <b>1</b>
Collector <b>FLUOR HANFORD</b> M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. <b>W07-002</b>	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title <b>RCRA FEBRUARY 2007</b>	<b>HNF - N-506 3</b>	Ice Chest No. <b>ROSS</b>	Temp.	
Shipped To (Lab) <b>Severn Trent Incorporated, Richland</b>	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol <b>RCRA</b>	Priority: 45 Days	Offsite Property No.		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Relinquished By <b>FLUOR HANFORD</b>	Print <b>M.R. WEIL</b>	Sign 	Date/Time <b>FEB 06 2007</b>	Received By 	Print <b>Eric Darby</b>	Sign 	Date/Time <b>FEB 06 2007</b>	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil SF = Sediment SO = Solid SI = Sludge W = Water O = Oil A = Air
			:					DS = Drum Solid DL = Drum Liquid T = Tissue WI = Wine L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

**STL**

Sample Check-in List

Date/Time Received 2/16/07 1315

Client PNL

SDG #: W05114

NA [ ]

SAF #: W07-002

NA [ ]

Work Order Number J78070172

Chain of Custody #

W07-002,120,132,133,14,

126

Shipping Container ID:

Air Bill #

126

1. Custody Seals on shipping container intact? NA [ ] Yes  No [ ]
2. Custody Seals dated and signed? NA [ ] Yes  No [ ]
3. Chain of Custody record present? NA [ ] Yes  No [ ]
4. Cooler temperature? NA [ ] Yes  No [ ]
5. Number of samples in shipping container? 5
6. Samples in shipping container are in vermiculite/packing materials? NA [ ] Yes  No [ ]
7. Sample holding times exceeded? NA [ ] Yes  No [ ]
8. Samples have:
  - tape
  - custody seals
  - hazard labels
  - appropriate samples labels
9. Samples are
  - in good condition
  - broken
  - leaking
  - have air bubbles
10. Sample pH taken? NA [ ] pH<2  pH>2 [ ] pH>9 [ ] (Only for samples requiring head space)
11. Sample Location, Sample Collector Listed? \* \*For documentation only. No corrective action needed. Yes  No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No
13. Description of anomalies (include sample numbers)

Sample Custodian:

En Darby

Date:

2/16/07 1315

Client Sample ID	Analysis Requested	Condition	Comments/Actions

Client Informed on:

by

Person contacted

[ ] No action necessary, process as is.

Project Manager

Date

STL RICHARD

PNNL JT B070176  
W05114  
Date 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # W07-002-68

Page 1 of 1

Relinquished By <b>D. R. BREWINGTON</b>	Print <i>D. R. Brewton</i>	Sign	Date/Time <i>12:55</i>	Received By <i>Eve Party ERIC DURBY</i>	Print	Sign	Date/Time <i>12:55</i>	Matrix *
Relinquished By		Date/Time		Received By		Date/Time		S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

PNNL JTB070176 W05114 Due 03-23-07		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						C.O.C. # <b>W07-002-74</b>
						Page 1 of 1		
Collector Fluor Hanford D. R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX				
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code						
Project Title RCRA, FEBRUARY 2007	HNF-N-S061	Ice Chest No. SAWS-109	Temp.					
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.						
Protocol RCRA	Priority: 45 Days	Offsite Property No.						
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)						SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		
Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis		Preservative
B1M882		W	2-6-07	1003	1x20-mL P	Activity Scan		None
B1M882		W			1x500-mL G/P	UTOT_KPA: Uranium (1)		HNO3 to pH <2
B1M882		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)		HNO3 to pH <2
B1M882		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)		HCl to pH <2
<i>JN22E</i> <i>DRB</i> <i>2-6-07</i>								
Relinquished By Fluor Hanford D. R. BREWINGTON	Print <i>DR/Brewington</i>	Sign	Date/Time 12:55 FEB 06 2007	Received By	Print	Sign	Date/Time 12:55 FEB 06 2007	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WT = Wine W = Water L = Limid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)					Disposed By	Date/Time	

SIL RICHLAND

PNNL JTB070176  
W05114  
Due 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. #	W07-002-80
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Page 1 of 1

Relinquished By Fluor Hanford D. R. BREWINGTON	Print <i>D. R. Brewington</i>	Sign	Date/Time 1254	Received By	Print	Sign	Date/Time 1255	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	

PNNL JNB070176  
W05114  
Due 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # W07-002-90

Page 1 of 1

Collector <b>D. R. BREWINGTON</b>	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA FEBRUARY 2007	KNF-W -506 1	Ice Chest No. SAWS-109	Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol RCRA	Priority: 45 Days	Offsite Property No.		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> Hold Time      Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		

Relinquished By <b>D. R. BREWINGTON</b>	Print <i>D. R. Brewington</i>	Sign	Date/Time <b>FEB 06 2007</b>	Received By <i>Eric Daly</i>	Print	Sign	Date/Time <b>FEB 06 2007</b>	Matrix *
Relinquished By		Date/Time	Received By			Date/Time		
Relinquished By		Date/Time	Received By			Date/Time		
Relinquished By		Date/Time	Received By			Date/Time		
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

STL RICHLAND

Sample Check-in List

Date/Time Received 2/6/07 1255

Client PWL

SDG #: W05114

NA

SAF # W07-002

NA

Work Order Number JTB070176

Chain of Custody # W07-002-68, 74, 80, 90

Shipping Container ID:

Air Bill #

1. Custody Seals on shipping container intact? NA  Yes  No
2. Custody Seals dated and signed? NA  Yes  No
3. Chain of Custody record present? NA  Yes  No
4. Cooler temperature? NA  Yes  No  Vermiculite/packing materials is NA  Wet  Dry
5. Number of samples in shipping container: 4
6. Sample holding times exceeded? NA  Yes  No
7. Samples have:  
 tape  
 custody seals  
 hazard labels
8. Samples are:  
 in good condition  
 broken  
 appropriate samples labels  
 leaking  
 have air bubbles
9. Sample pH taken? NA  pH<2  pH>2  pH>9 

(Only for samples requiring head space)
10. Sample Location, Sample Collector Listed?  
 \*For documentation only. No corrective action needed. Yes  No
11. Were any anomalies identified in sample receipt? Yes  No
12. Description of anomalies (include sample numbers).

Sample Custodian:	<u>Eve Duby</u>	Date:	<u>2/6/07 1255</u>
Client Sample ID	Analysis Requested	Condition	Comments/Actions

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person contacted \_\_\_\_\_

No action necessary, process as is.

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

PNNL JTB070198  
W05114  
Due 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # W07-002-102

Page 1 of 1

Collector	K.J. YOUNG	Contact/Requester	Telephone No.	MSIN	FAX		
		Dot Stewart	509-376-5056				
SAF No.	W07-002	Sampling Origin	Purchase Order/Charge Code				
		Hanford Site					
Project Title	Logbook: HNF-N-S06-4	Ice Chest No.	SML-562	Temp.			
RCRA, FEBRUARY 2007							
Shipped To (Lab)	Method of Shipment	Bill of Lading/Air Bill No.					
Severn Trent Incorporated, Richland	Govt. Vehicle						
Protocol	Priority: 45 Days			Offsite Property No.			
RCRA							
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)					SPECIAL INSTRUCTIONS      Hold Time      Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		
Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1M8M5	W	2/6/07	1C10		1x20-mL P	Activity Scan	None
B1M8M5	W				1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1M8M5	W	↓	↓		1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
<i>JND 8K</i>							
<i>Line call 2/6/07</i>							

Relinquished By <b>K. YOUNG</b>	Print 	Sign 	Date/Time 1/55	Received By <b>Eric Darby</b>	Print 	Sign 	Date/Time 1/55	Matrix *
Relinquished By			Date/Time FEB 06 2007	Received By <b>Eric Darby</b>			Date/Time FEB 06 2007	S = Soil DS = Drum Solid SE = Sediment DI = Drum Lining SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By			Date/Time

PNNL JTB070198 W05114 Due 03-23-07		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			C.O.C. # <b>W07-002-62</b>
					Page <u>1</u> of <u>1</u>
Collector <b>R.J. YOUNG</b>	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX	
SAF No. <b>W07-002</b>	Sampling Origin Hanford Site	Purchase Order/Charge Code			
Project Title <b>RCRA FEBRUARY 2007</b>	<b>Logbook: HNF-N-506-4</b>	Ice Chest No. <b>SML-562</b> Temp.			
Shipped To (Lab) <b>Severn Trent Incorporated, Richland</b>	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.			
Protocol <b>RCRA</b>	Priority: 45 Days	Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Relinquished By <b>K.J. YOUNG</b>	Print <i>[Signature]</i>	Sign	Date/Time 1/55	Received By <i>Eric Daily</i>	Print <i>[Signature]</i>	Sign	Date/Time 1/55	Matrix *
Relinquished By			FEB 06 2007	Received By			FEB 06 2007	S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Shdede WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

PNNL 07B070198  
W05114  
Due 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # W07-002-108

Page 1 of 1

Collector K.J. YOUNG	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA FEBRUARY 2007	Log book: HNF-N-S06-4	Ice Chest No.	SML - S02	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol RCRA	Priority: 45 Days	Offsite Property No.		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Relinquished By <b>K.J. YOUNG</b>	Print <i>[Signature]</i>	Sign	Date/Time <b>FEB 06 2007</b>	Received By <i>Eric Darby</i>	Print <i>[Signature]</i>	Sign	Date/Time <b>FEB 06 2007</b>	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil DS = Drum Solid SF = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

**STL**

Sample Check-in List

Date/Time Received: 2/6/07 1155

Client: PWL SDG #: W05114 NA  SAF #: W07-002 NA   
 Work Order Number: JTB070198 Chain of Custody #: W07-002-102,62,108  
 Shipping Container ID: \_\_\_\_\_ Air Bill #: \_\_\_\_\_

1. Custody Seals on shipping container intact? NA  Yes  No
2. Custody Seals dated and signed? NA  Yes  No
3. Chain of Custody record present? Yes  No
4. Cooler temperature: NA  S. Vermiculite/packing materials is NA  Wet  Dry
5. Number of samples in shipping container: 3
6. Sample holding times exceeded? NA  Yes  No
7. Samples have:  
 tape  
 custody seals  
 hazard labels  
 appropriate samples labels
8. Samples are:  
 in good condition  
 broken  
 leaking  
 have air bubbles  
 (Only for samples requiring head space)
9. Sample pH taken? NA  pH<2  pH>2  pH>9
10. Sample Location, Sample Collector Listed? \*  
 \*For documentation only. No corrective action needed. Yes  No
11. Were any anomalies identified in sample receipt? Yes  No
12. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian: Evi Darby Date: 2/6/07 1155

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person contacted \_\_\_\_\_

No action necessary; process as is.

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

PNNL T 18070203  
W05114  
Due 03-23-07

## **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

C.O.C. # W07-002-96

Page 1 of 1

<b>DOE CONNOLLY</b>	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA, FEBRUARY 2007	14NF-N-506-2	Ice Chest No.	Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol RCRA	Priority: 45 Days	Offsite Property No.		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

JN29A

Relinquished By <b>D.P. CONNOLLY</b>	Print  Sign <b>FEB 06 2007</b>	Date/Time <b>1150</b>	Received By <i>Eric Daugy</i>	Print  Sign <b>FEB 06 2007</b>	Date/Time <b>1150</b>	Matrix *
Relinquished By	Date/Time	Received By				S = Soil      DS = Drum Solid SE = Sediment      DL = Drum Liquid SO = Solid      T = Tissue SL = Sludge      WI = Wine W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By	Date/Time	Received By				
Relinquished By	Date/Time	Received By				
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By	Date/Time	

Relinquished By <b>D. P. CONNOLLY</b>	Print <i>D. P.</i>	Sign	Date/Time <b>FEB 06 2007 1150</b>	Received By <i>Eve Dabry Eric Dabry</i>	Print	Sign	Date/Time <b>FEB 06 2007</b>	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By			Date/Time





**STANGLIN**  
**RICHLAND** STL

Sample Check-in List

Date/Time Received: 2/16/07 1155

Client: PNL

SDG #: W05114

NA [ ]

SAF #: W07-002

NA [ ]

Work Order Number: JTB070203

Chain of Custody #: W07-002-96,44,50,32

Shipping Container ID: \_\_\_\_\_

All Bill #: \_\_\_\_\_

1. Custody Seals on shipping container intact? Yes ✓ No [ ]

NA [ ] Yes ✓ No [ ]

2. Custody Seals dated and signed? Yes ✓ No [ ]

NA [ ] Yes ✓ No [ ]

3. Chain of Custody record present? Yes ✓ No [ ]

Yes ✓ No [ ]

4. Cooler temperature: NA ✓ 5 Vermiculite/packing materials is NA ✓ Wet [ ]

5. Number of samples in shipping container: 4

6. Sample holding times exceeded? Yes ✓ No [ ]

7. Samples have:

tape

hazard labels

custody seals

appropriate samples labels

8. Samples are:

in good condition

leaking

broken

have air bubbles

(Only for samples requiring head space)

9. Sample pH taken? NA [ ] pH<2 ✓ pH>2 [ ] pH>9 [ ]

10. Sample Location, Sample Collector Listed? \*

\*For documentation only. No corrective action needed.

Yes ✓ No [ ]

11. Were any anomalies identified in sample receipt? Yes [ ] No ✓

12. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian: Eve Darby

Date: 2/16/07 1155

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_

Person contacted \_\_\_\_\_

[ ] No action necessary, process as is.

Project Manager \_\_\_\_\_

Date \_\_\_\_\_

3/26/2007 9:23:40 AM

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AnalyDueDate: 03/23/2007

## Sample Preparation/Analysis

Priority

Balance Id:1120482733

Pipet #: \_\_\_\_\_

BC Gross Beta PrpRC5014  
S8 Gross Beta by GPC using Sr/Y-90 curve  
SI CLIENT: HANFORD

Batch: 7082497 WATER

pCi/L

PM, Quote: SA , 57671

SEQ Batch, Test: None All Tests: 7039575 AWTa, 7039576 BCS8, 7039577 FPS5, 7039578 AMS5, 7039579 DHSS, 7065148 BCS8,  
7081334 BCS8, 7082497 BCS8,

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
----------------------------------	----------------	--------------------------	---------------------	-----------	-----------------	----------------	-------------	------------------------------	-----------------------	-----------

1 JN22J-4-AA J7B070176-3-SAMP	90.40g,in			1.5	86.1	200	312	1801	3/27/07s
02/06/2007 10:42	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7						Scr: Alpha: 2.36E-04 uCi/Sa	Beta: -5.59E-05 uCi/Sa
2 JN29J-1-AJ-X J7B070203-2-DUP	200.70g,in			89.4	100		332	084	
02/06/2007 09:39	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7						Scr: Alpha: -4.26E-05 uCi/Sa	Beta: -1.06E-03 uCi/Sa
3 JN29J-4-AA J7B070203-2-SAMP	200.00g,in			88.8		↓	323		
02/06/2007 09:39	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7						Scr: Alpha: -4.26E-05 uCi/Sa	Beta: -1.06E-03 uCi/Sa
4 JRN1K-1-AA-B J7C230000-497-BLK	200.10g,in			∅	200	313	1801		
02/06/2007 09:39	AmtRec:	#Containers: 1						Scr: Alpha:	Beta:
5 JRN1K-1-AC-C J7C230000-497-LCS	199.70g,in	BESB3037 02/26/07,rd 08/08/06,r		∅	∅	↓	31C		
02/06/2007 09:39	AmtRec:	#Containers: 1						Scr: Alpha:	Beta:

Comments: JN22J-SAMP "Comments. Aliquot reduced due to weight screen activity. JB 03/06/07"  
 JN29J-DUP "Comments. No sample left that was intended for the beta, so substituted the sample to be used for tech. JB 03/26/07"

RH C2.0 93 3-26-07

All Clients for Batch:

384868, Pacific Northwest National Laboratory

Pacific Northwest National Lab, SA , 57671

STL Richland  
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 5

Prep\_SamplePrep v4.8.26

3/26/2007 9:23:46 AM

## Sample Preparation/Analysis

Balance Id:1120482733

BC Gross Beta PrpRC5014  
 S8 Gross Beta by GPC using Sr/Y-90 curve  
 51 CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7082497  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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## JN22J4AA-SAMP Constituent List:

BETA RDL:4.00E+00 pCi/L LCL: UCL: RPD:

## JRN1K1AA-BLK:

BETA RDL:4.00E+00 pCi/L LCL: UCL: RPD:

## JRN1K1AC-LCS:

Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20

## JN22J4AA-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

## JRN1K1AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

## JRN1K1AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By \_\_\_\_\_

Date: \_\_\_\_\_

2/20/2007 2:23:44 PM

## Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,  
Pacific Northwest National LabAW Gamma PrpRC5017  
TA Gamma by HPGE  
5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7039575 WATER pCi/L  
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ /APR

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JN210-1-AA J7B070176-1-SAMP	2001.90g,in 	2001.90g,in 	100ml 100 100ml 100	66	1328	2/27/07				
02/06/2007 08:25	AmtRec: 20ML,2X500ML,4LP	#Containers: 4			Scr:	Alpha: 1.66E-06 uCi/Sa	Beta: 5.59E-07 uCi/Sa			
2 JN22E-1-AA J7B070176-2-SAMP	1998.80g,in 	1998.80g,in 		68	1328					
02/06/2007 10:03	AmtRec: 20ML,2X500ML,4LP	#Containers: 4			Scr:	Alpha: 2.32E-06 uCi/Sa	Beta: 9.14E-07 uCi/Sa			
3 JN22J-1-AC J7B070176-3-SAMP	2001.50g,in 	2001.50g,in 		67	1328					
02/06/2007 10:42	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7			Scr:	Alpha: 2.36E-04 uCi/Sa	Beta: -5.59E-05 uCi/Sa			
4 JN22W-1-AA J7B070176-4-SAMP	2002.80g,in 	2002.80g,in 		610	1329					
02/06/2007 09:16	AmtRec: 20ML,500ML,3XLP,4LP	#Containers: 6			Scr:	Alpha: 1.54E-03 uCi/Sa	Beta: 9.31E-04 uCi/Sa			
5 JN28K-1-AA J7B070198-1-SAMP	2000.90g,in 	2000.90g,in 		66	1511	9/07/07				
02/06/2007 10:10	AmtRec: 20ML,500ML,4LP	#Containers: 3			Scr:	Alpha: 1.84E-05 uCi/Sa	Beta: -2.95E-05 uCi/Sa			
6 JN28P-1-AA J7B070198-2-SAMP	1995.20g,in 	1995.20g,in 		68	1511					
02/06/2007 09:19	AmtRec: 20ML,2X500ML,4LP	#Containers: 4			Scr:	Alpha: 4.87E-06 uCi/Sa	Beta: 1.03E-06 uCi/Sa			
7 JN29A-1-AA J7B070203-1-SAMP	1961.30g,in 	1961.30g,in 	↓	67	1511					
02/06/2007 10:24	AmtRec: 20ML,2X500ML,4LP	#Containers: 4			Scr:	Alpha: 9.72E-07 uCi/Sa	Beta: -6.85E-07 uCi/Sa			

STL Richland  
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep\_SamplePrep v4.8.26

2/20/2007 2:23:49 PM

## Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National LabAW Gamma PrpRC5017  
TA Gamma by HPGE  
5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7039575 WATER pCi/L  
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JN29A-1-AE-X J7B070203-1-DUP	1956.70g,in			100 ml	100	G10	1572	267/373		
02/06/2007 10:24	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 9.72E-07 uCi/Sa	Beta: -6.85E-07 uCi/Sa
9 JN29J-1-AC J7B070203-2-SAMP	2001.50g,in					G10	1731	2/27/07 HK		
02/06/2007 09:39	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7							Scr: Alpha: -4.26E-05 uCi/Sa	Beta: -1.06E-03 uCi/Sa
10 JN29P-1-AA J7B070203-3-SAMP	1995.10g,in					G10	1916	2/27/07 HK		
02/06/2007 08:54	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 8.06E-07 uCi/Sa	Beta: 3.83E-07 uCi/Sa
11 JN6JM-1-AA-B J7B080000-575-BLK	2001.00g,in					G6	1949	2/27/07 HK		
02/06/2007 10:24	AmtRec:	#Containers: 1							Scr: Alpha:	Beta:
12 JN6JM-1-AC-C J7B080000-575-LCS	2000.00g,in	QCAG1339 01/23/07,pd 03/07/05,r		✓	✓	G7	1916	2/27/07 HK		
02/06/2007 10:24	AmtRec:	#Containers: 1							Scr: Alpha:	Beta:

Comments: QA L2-093 2-22-07

## All Clients for Batch:

384868, Pacific Northwest National Laboratory

Pacific Northwest National Lab, SA , 57671

## JN2101AA-SAMP Constituent List:

Co-60 RDL:0.00E+00 pCi/L LCL: UCL: RPD: Cs-134 RDL:0.00E+00 pCi/L LCL: UCL: RPD:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 2

ISV - Insufficient Volume for Analysis

WO Cnt: 12

Prep\_SamplePrep v4.8.26

2/20/2007 2:23:55 PM

## Sample Preparation/Analysis

Balance Id:1120482733

STL RICHLAND

AW Gamma PrpRC5017  
 TA Gamma by HPGE  
 SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7039575

pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130 RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL: RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL: RPD:
<b>JN6JM1AA-BLK:</b>										
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL: RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL: RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL: RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL: RPD:
<b>JN6JM1AC-LCS:</b>										
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130 RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130 RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130 RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20					
<b>JN2101AA-SAMP Calc Info:</b>										
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B						
<b>JN6JM1AA-BLK:</b>										
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B						
<b>JN6JM1AC-LCS:</b>										
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B						

Approved By \_\_\_\_\_

Date: \_\_\_\_\_

2/19/2007 9:12:39 AM

## Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National LabFP Tc-99 Prp/SepRC5065  
S5 Technetium-99 by Liquid Scint  
5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7039577 WATER

pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JN210-1-AC J7B070176-1-SAMP			125.80g,in	125.80g						60
02/06/2007 08:25	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 1.66E-06 uCi/Sa	Beta: 5.59E-07 uCi/Sa
2 JN22E-1-AC J7B070176-2-SAMP			125.90g,in	125.90g						
02/06/2007 10:03	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 2.32E-06 uCi/Sa	Beta: 9.14E-07 uCi/Sa
3 JN28P-1-AC J7B070198-2-SAMP			125.60g,in	125.60g						
02/06/2007 09:19	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 4.87E-06 uCi/Sa	Beta: 1.03E-06 uCi/Sa
4 JN28P-1-AE-X J7B070198-2-DUP			126.30g,in	126.30g						
02/06/2007 09:19	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 4.87E-06 uCi/Sa	Beta: 1.03E-06 uCi/Sa
5 JN29A-1-AC J7B070203-1-SAMP			127.00g,in	127.00g						
02/06/2007 10:24	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 9.72E-07 uCi/Sa	Beta: -6.85E-07 uCi/Sa
6 JN29P-1-AC J7B070203-3-SAMP			127.30g,in	127.30g						
02/06/2007 08:54	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 8.06E-07 uCi/Sa	Beta: 3.83E-07 uCi/Sa
7 JN29P-1-AE-S J7B070203-3-MS			125.50g,in	125.50g	TCSG1770 01/24/07,pd 01/10/06,r					
02/06/2007 08:54	AmtRec: 20ML,2X500ML,4LP	#Containers: 4							Scr: Alpha: 8.06E-07 uCi/Sa	Beta: 3.83E-07 uCi/Sa

2/19/2007 9:12:43 AM

STL RICHLAND

## Sample Preparation/Analysis

Balance Id:1120482733

AnalyDueDate: 03/23/2007

Batch: 7039577

SEQ Batch, Test: None

pCi/L

FP Tc-99 Prp/SepRC5065  
 S5 Technetium-99 by Liquid Scint  
 5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JN6JQ-1-AA-B J7B080000-577-BLK			201.80g,in	201.80g						

02/06/2007 08:54

AmtRec: #Containers: 1

Scr: Alpha:

Beta:

9 JN6JQ-1-AC-C  
J7B080000-577-LCS201.10g,in 201.10g  
TCSE2072  
01/24/07,pd  
01/10/06,r

02/06/2007 08:54

AmtRec: #Containers: 1

Scr: Alpha:

Beta:

10 JN6JQ-1-AD-BN  
J7B080000-577-IBLK

02/06/2007 08:54

AmtRec: #Containers: 1

Scr: Alpha:

Beta:

Comments: RH &lt;2.0 2-19-07

## All Clients for Batch:

384868, Pacific Northwest National Laboratory

Pacific Northwest National Lab, SA , 57671

## JN2101AC-SAMP Constituent List:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20  
JN29P1AE-MS:

## JN6JQ1AA-BLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

## JN6JQ1AC-LCS:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20  
JN6JQ1AD-IBLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

## JN2101AC-SAMP Calc Info:

Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B  
JN29P1AE-MS:

Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

STL Richland

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 2

ISV - Insufficient Volume for Analysis

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

WO Cnt: 10

Prep\_SamplePrep v4.8.26

2/19/2007 9:12:48 AM

STL RICHLAND

## Sample Preparation/Analysis

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 03/23/2007

Batch: 7039577  
SEQ Batch, Test: None

pCi/L

FP Tc-99 Prp/SepRC5065

S5 Technetium-99 by Liquid Scint

SI CLIENT: HANFORD



Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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JN6JQ1AA-BLK:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JN6JQ1AC-LCS:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JN6JQ1AD-IBLK:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By \_\_\_\_\_ Date: \_\_\_\_\_

STL Richland Richland Wa.	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	Page 3	ISV - Insufficient Volume for Analysis	WO Cnt: 10 Prep_SamplePrep v4.8.26
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2/22/2007 1:27:39 PM

STL RICHLAND

384868, Pacific Northwest National Laboratory ,  
Pacific Northwest National Lab

AnalyDueDate: 03/23/2007

Batch: 7039578 WATER

SEQ Batch, Test: None All Tests: 7039578 AMS5, 7039579 DHSS,

## Sample Preparation/Analysis

Balance Id:1120482733

Pipet #: \_\_\_\_\_

AM Tc-99 Prp/SepRC5078  
S5 Technetium-99 by Liquid Scint  
SI CLIENT: HANFORD

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample Date Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JN2X5-1-AA	126.00g,in							
J7B070172-1-SAMP								
02/06/2007 11:27	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: -8.01E-04 uCi/Sa	Beta: 7.18E-04 uCi/Sa
2 JN20A-1-AA	125.10g,in							
J7B070172-2-SAMP								
02/06/2007 09:53	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: 4.25E-04 uCi/Sa	Beta: 4.31E-04 uCi/Sa
3 JN20Q-1-AA	127.40g,in							
J7B070172-3-SAMP								
02/06/2007 10:37	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: -2.64E-04 uCi/Sa	Beta: -1.88E-04 uCi/Sa
4 JN202-1-AA	125.80g,in							
J7B070172-4-SAMP								
02/06/2007 08:56	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: 2.37E-04 uCi/Sa	Beta: -3.93E-04 uCi/Sa
5 JN21N-1-AA	127.40g,in							
J7B070172-5-SAMP								
02/06/2007 08:56	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: 3.34E-04 uCi/Sa	Beta: -3.11E-04 uCi/Sa
6 JN22J-1-AD	127.20g,in							
J7B070176-3-SAMP								
02/06/2007 10:42	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7					Scr: Alpha: 2.36E-04 uCi/Sa	Beta: -5.59E-05 uCi/Sa
7 JN22W-1-AC	124.80g,in							
J7B070176-4-SAMP								
02/06/2007 09:16	AmtRec: 20ML,500ML,3XLP,4LP	#Containers: 6					Scr: Alpha: 1.54E-03 uCi/Sa	Beta: 9.31E-04 uCi/Sa

STL Richland  
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

ICOC v4.8.26

2/22/2007 1:27:40 PM

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AnalyDueDate: 03/23/2007

Batch: 7039578 WATER

pCi/L

## Sample Preparation/Analysis

Balance Id:1120482733

AM Tc-99 Prp/SepRC5078  
S5 Technetium-99 by Liquid Scint  
SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

STL RICHLAND

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JN28R-1-AA J7B070198-3-SAMP	127.50g,in							
02/06/2007 11:01	AmtRec: 20ML,3XLP	#Containers: 4					Scr: Alpha: -1.29E-04 uCi/Sa	Beta: -1.97E-05 uCi/Sa
9 JN29J-1-AD J7B070203-2-SAMP	127.00g,in							
02/06/2007 09:39	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7					Scr: Alpha: -4.26E-05 uCi/Sa	Beta: -1.06E-03 uCi/Sa
10 JN29J-1-AG-S J7B070203-2-MS	125.40g,in	TCSG1772 01/24/07,pd 01/10/06,r						
02/06/2007 09:39	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7					Scr: Alpha: -4.26E-05 uCi/Sa	Beta: -1.06E-03 uCi/Sa
11 JN29X-1-AA J7B070203-4-SAMP	125.20g,in							
02/06/2007 08:20	AmtRec: 20ML,3XLP	#Containers: 4					Scr: Alpha: -4.62E-05 uCi/Sa	Beta: 5.13E-05 uCi/Sa
12 JN6JR-1-AA-B J7B080000-578-BLK	125.50g,in							
02/06/2007 09:39	AmtRec:	#Containers: 1					Scr: Alpha:	Beta:
13 JN6JR-1-AC-C J7B080000-578-LCS	125.60g,in	TCSE2074 01/24/07,pd 01/10/06,r						
02/06/2007 09:39	AmtRec:	#Containers: 1					Scr: Alpha:	Beta:
14 JN6JR-1-AD-BN J7B080000-578-IBLK								
02/06/2007 09:39	AmtRec:	#Containers: 1					Scr: Alpha:	Beta:

STL Richland  
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 14  
ICOC v4.8.26

2/22/2007 1:27:42 PM

STL RICHLAND

## Sample Preparation/Analysis

Balance Id:

AnalyDueDate: 03/23/2007

AM Tc-99 Prp/SepRC5078  
S5 Technetium-99 by Liquid Scint  
SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

Batch: 7039578  
SEQ Batch, Test: None

pCi/L

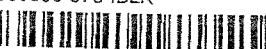
Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 JN6JR-1-AE-BN								

J7B080000-578-IBLK



02/06/2007 09:39

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

Comments: JN22J-SAMP "Comments. Aliquot reduced due to weight screen activity. JB 02/22/07"

QA L2 09B 2-19-07

All Clients for Batch:

384868, Pacific Northwest National Laboratory

Pacific Northwest National Lab, SA , 57671

JN2X51AA-SAMP Constituent List:

Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20

JN29J1AG-MS:

JN6JR1AA-BLK:

Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

JN6JR1AC-LCS:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

JN6JR1AD-IBLK:

Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

JN6JR1AE-IBLK:

Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

JN2X51AA-SAMP Calc Info:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JN29J1AG-MS:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JN6JR1AA-BLK:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JN6JR1AC-LCS:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JN6JR1AD-IBLK:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JN6JR1AE-IBLK:

Uncert Level (#s)..: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

STL Richland

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 3

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 15

ICOC v4.8.26

2/22/2007 1:27:42 PM

STL RICHLAND

## Sample Preparation/Analysis

Balance Id:

Pipet #: \_\_\_\_\_

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Batch: 7039578  
SEQ Batch, Test: None

pCi/L

AM Tc-99 Prp/SepRC5078  
S5 Technetium-99 by Liquid Scint  
5I CLIENT: HANFORD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Approved By \_\_\_\_\_ Date: \_\_\_\_\_

STL Richland Richland Wa.	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	Page 4	ISV - Insufficient Volume for Analysis	WO Cnt: 15 ICOC v4.8.26
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2/20/2007 11:48:34 AM

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AnalyDueDate: 03/22/2007

Batch: 7039579 WATER ug/L  
SEQ Batch, Test: None

## Sample Preparation/Analysis

Balance Id:1120482733

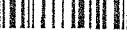
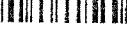
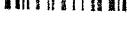
DH UNat\_Laser PrpRC5015  
SS Total Uranium by KPA  
SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JN0H4-1-AA J7B060116-1-SAMP	25.30g,in 	AmtRec: 20ML,500MLP	#Containers: 2				Scr: Alpha: 5.51E-05 uCi/Sa Beta: -3.26E-06 uCi/Sa	
2 JN0H4-1-AC-X J7B060116-1-DUP	25.30g,in 	AmtRec: 20ML,500MLP	#Containers: 2				Scr: Alpha: 5.51E-05 uCi/Sa Beta: -3.26E-06 uCi/Sa	
3 JN0H6-1-AA J7B060116-2-SAMP	25.30g,in 	AmtRec: 20ML,500MLP	#Containers: 2				Scr: Alpha: -1.13E-06 uCi/Sa Beta: 1.44E-06 uCi/Sa	
4 JN0H7-1-AA J7B060116-3-SAMP	25.50g,in 	AmtRec: 20ML,500MLP	#Containers: 2				Scr: Alpha: 1.24E-05 uCi/Sa Beta: -4.45E-05 uCi/Sa	
5 JN0H9-1-AA J7B060116-4-SAMP	25.00g,in 	AmtRec: 20ML,500MLP	#Containers: 2				Scr: Alpha: -6.12E-05 uCi/Sa Beta: 7.35E-05 uCi/Sa	
6 JN2X5-1-AC J7B070172-1-SAMP	27.20g,in 	AmtRec: 20ML,500ML,3XLP	#Containers: 5				Scr: Alpha: -8.01E-04 uCi/Sa Beta: 7.18E-04 uCi/Sa	
7 JN20A-1-AC J7B070172-2-SAMP	25.10g,in 	AmtRec: 20ML,500ML,3XLP	#Containers: 5				Scr: Alpha: 4.25E-04 uCi/Sa Beta: 4.31E-04 uCi/Sa	

2/20/2007 11:48:37 AM

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AnalyDueDate: 03/22/2007

Batch: 7039579 WATER ug/L

SEQ Batch, Test: None

## Sample Preparation/Analysis

Balance Id:1120482733

DH UNat\_Laser PrpRC5015  
SS Total Uranium by KPA  
SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JN20Q-1-AC	25.20g,in							
J7B070172-3-SAMP								
02/06/2007 10:37	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: -2.64E-04 uCi/Sa	Beta: -1.88E-04 uCi/Sa
9 JN202-1-AC	26.10g,in							
J7B070172-4-SAMP								
02/06/2007 08:56	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: 2.37E-04 uCi/Sa	Beta: -3.93E-04 uCi/Sa
10 JN21N-1-AC	26.50g,in							
J7B070172-5-SAMP								
02/06/2007 08:56	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: 3.34E-04 uCi/Sa	Beta: -3.11E-04 uCi/Sa
11 JN21N-1-AD-S	26.40g,in	UNSF3605						
J7B070172-5-MS		02/05/07,pd						
		01/23/07,r						
02/06/2007 08:56	AmtRec: 20ML,500ML,3XLP	#Containers: 5					Scr: Alpha: 3.34E-04 uCi/Sa	Beta: -3.11E-04 uCi/Sa
12 JN210-1-AD	26.80g,in							
J7B070176-1-SAMP								
02/06/2007 08:25	AmtRec: 20ML,2X500ML,4LP	#Containers: 4					Scr: Alpha: 1.66E-06 uCi/Sa	Beta: 5.59E-07 uCi/Sa
13 JN22E-1-AD	25.80g,in							
J7B070176-2-SAMP								
02/06/2007 10:03	AmtRec: 20ML,2X500ML,4LP	#Containers: 4					Scr: Alpha: 2.32E-06 uCi/Sa	Beta: 9.14E-07 uCi/Sa
14 JN22J-1-AE	25.00g,in							
J7B070176-3-SAMP								
02/06/2007 10:42	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7					Scr: Alpha: 2.36E-04 uCi/Sa	Beta: -5.59E-05 uCi/Sa

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 14  
 Prep\_SamplePrep v4.8.26

2/20/2007 11:48:39 AM

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AnalyDueDate: 03/22/2007

Batch: 7039579 WATER ug/L  
SEQ Batch, Test: None

## Sample Preparation/Analysis

Balance Id:1120482733

DH UNat\_Laser PrpRC5015  
SS Total Uranium by KPA  
SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 JN22W-1-AD	25.00g,in							
J7B070176-4-SAMP								
02/06/2007 09:16	AmtRec: 20ML,500ML,3XLP,4LP	#Containers: 6					Scr: Alpha: 1.54E-03 uCi/Sa	Beta: 9.31E-04 uCi/Sa
16 JN28K-1-AC	27.90g,in							
J7B070198-1-SAMP								
02/06/2007 10:10	AmtRec: 20ML,500ML,4LP	#Containers: 3					Scr: Alpha: 1.84E-05 uCi/Sa	Beta: -2.95E-05 uCi/Sa
17 JN28P-1-AD	27.20g,in							
J7B070198-2-SAMP								
02/06/2007 09:19	AmtRec: 20ML,2X500ML,4LP	#Containers: 4					Scr: Alpha: 4.87E-06 uCi/Sa	Beta: 1.03E-06 uCi/Sa
18 JN29A-1-AD	25.10g,in							
J7B070203-1-SAMP								
02/06/2007 10:24	AmtRec: 20ML,2X500ML,4LP	#Containers: 4					Scr: Alpha: 9.72E-07 uCi/Sa	Beta: -6.85E-07 uCi/Sa
19 JN29J-1-AE	25.30g,in							
J7B070203-2-SAMP								
02/06/2007 09:39	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7					Scr: Alpha: -4.26E-05 uCi/Sa	Beta: -1.06E-03 uCi/Sa
20 JN29P-1-AD	26.50g,in							
J7B070203-3-SAMP								
02/06/2007 08:54	AmtRec: 20ML,2X500ML,4LP	#Containers: 4					Scr: Alpha: 8.06E-07 uCi/Sa	Beta: 3.83E-07 uCi/Sa
21 JN6JT-1-AA-B	25.60g,in							
J7B080000-579-BLK								
02/06/2007 08:56	AmtRec:	#Containers: 1					Scr: Alpha:	Beta:

STL Richland  
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 3

ISV - Insufficient Volume for Analysis

WO Cnt: 21

Prep\_SamplePrep v4.8.26

2/20/2007 11:48:41 AM

STL RICHLAND

## Sample Preparation/Analysis

Balance Id:1120482733

Pipet #: \_\_\_\_\_

AnalyDueDate: 03/22/2007

Batch: 7039579  
SEQ Batch, Test: None

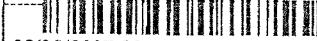
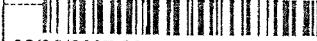
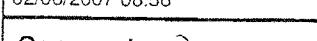
ug/L

DH UNat\_Laser PrpRC5015  
SS Total Uranium by KPA  
SI CLIENT: HANFORD

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
22 JN6JT-1-AC-C 	25.60g,in		UNSF3606 02/05/07,pd 01/23/07,r					
02/06/2007 08:56 		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
23 JN6JT-1-AD-C 	25.20g,in		UNSC1496 01/23/07,pd 04/28/06,r					
02/06/2007 08:56 		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments: PA &lt; 2.0 JB 2-20-07

All Clients for Batch:

384858, Pacific Northwest National Laboratory

Pacific Northwest National Lab, SA , 57671

JN0H41AA-SAMP Constituent List:

Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:  
JN21N1AD-MS:

JN6JT1AA-BLK:

Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:  
JN6JT1AC-LCS:Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20  
JN6JT1AD-LCS:Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20  
JN0H41AA-SAMP Calc Info:Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B  
JN21N1AD-MS:  
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B  
JN6JT1AA-BLK:  
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B  
JN6JT1AC-LCS:  
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B  
JN6JT1AD-LCS:  
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: BSTL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2  
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 23

Prep\_SamplePrep v4.8.26

3/27/2007 11:13:29 AM

# ICOC Fraction Transfer/Status Report

ByDate: 3/27/2006, 4/1/2007, Batch: '7082497', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
<b>7082497</b>					
AC		CalcC	BockJ	3/26/2007 9:03:47	
SC			antonsonl	IsBatched	3/23/2007 4:38:25 PM ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/26/2007 9:03:47 AM RICH-RC-5017 Revision 5
SC			AshworthA	InPrep2	3/26/2007 11:09:28 AM RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	3/26/2007 7:02:57 PM RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	3/26/2007 7:38:39 PM RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	3/27/2007 10:25:42 AM RICH-RD-0003 REVISION 4
AC			AshworthA		3/26/2007 11:09:28
AC			AshworthA		3/26/2007 7:02:57 PM
AC			DAWKINSO		3/26/2007 7:38:39 PM
AC			BlackCL		3/27/2007 10:25:42

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

STL RICHLAND

Page 1

Grp Rec Cnt:5  
ICOCPFractions v4.8.26

2/28/2007 11:04:26 AM

# ICOC Fraction Transfer/Status Report

ByDate: 2/28/2006, 3/5/2007, Batch: '7039575', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
<b>7039575</b>						
AC	CalcC	BockJ	2/20/2007 1:33:20 PM			
SC		andersonp	IsBatched	2/9/2007 7:47:34 AM		ICOC_RADCALC v4.8.26
SC		BockJ	InPrep	2/20/2007 1:33:20 PM		RICH-RC-5016 Revision 6
SC		BockJ	Prep1C	2/20/2007 2:23:50 PM		RICH-RC-5017 REVISION 5
SC		AshworthA	InPrep2	2/26/2007 7:11:03 AM		RICH-RC-5017 REVISION 4
SC		AshworthA	Prep2C	2/27/2007 11:19:12 AM		RICH-RC-5017 REVISION 4
SC		BlackCL	InCnt1	2/27/2007 11:46:17 AM		RICH-RD-0007 REVISION 5
SC		DAWKINSO	CalcC	2/27/2007 7:42:57 PM		RICH-RD-0007 REVISION 5
AC		BockJ	2/20/2007 2:23:50 PM			
AC		AshworthA	2/26/2007 7:11:03			
AC		AshworthA	2/27/2007 11:19:12			
AC		BlackCL	2/27/2007 11:46:17			
AC		DAWKINSO	2/27/2007 7:42:57 PM			

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt:6  
ICOCFractions v4.8.26

STL RICHLAND

90

2/21/2007 2:09:53 PM

# ICOC Fraction Transfer/Status Report

ByDate: 2/21/2006, 2/26/2007, Batch: '7039577', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7039577				
AC		CalcC	BockJ	2/19/2007 9:01:21	
SC			andersonp	IsBatched	2/9/2007 7:47:34 AM ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/19/2007 9:01:21 AM RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	2/19/2007 9:12:38 AM RICH-RC-5016 REVISION 6
SC			FABREM	Sep1C	2/19/2007 7:16:11 PM RICH-RC-5065 REVISION 5
SC			DAWKINSO	InCnt1	2/19/2007 7:27:52 PM RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	2/21/2007 6:15:49 AM RICH-RD-0001 REVISION 3
AC			BockJ	2/19/2007 9:12:38	
AC			FABREM	2/19/2007 7:16:11 PM	
AC			DAWKINSO	2/19/2007 7:27:52 PM	
AC			BlackCL	2/21/2007 6:15:49	

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

STL RICHLAND

Page 1

Grp Rec Cnt:5  
ICOFCFractions v4.8.26

2/23/2007 2:36:39 PM

# ICOC Fraction Transfer/Status Report

ByDate: 2/23/2006, 2/28/2007, Batch: '7039578', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
<b>7039578</b>					
AC		Rev1C	BockJ	2/19/2007 9:33:49	
SC			andersonp	IsBatched	2/9/2007 7:47:34 AM ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/19/2007 9:33:49 AM RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	2/19/2007 9:49:10 AM RICH-RC-5016 REVISION 6
SC			FABREM	Sep1C	2/22/2007 2:55:03 PM RICH-RC-5078 REVISION 3
SC			StringerR	InCnt1	2/22/2007 2:57:56 PM RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	2/23/2007 2:14:22 PM RICH-RD-0001 REVISION 3
SC			WhelandS	Rev1C	2/23/2007 2:34:26 PM RICH-RC-0002 REVISION 7
AC			BockJ	2/19/2007 9:49:10	
AC			FABREM	2/22/2007 2:55:03 PM	
AC			StringerR	2/22/2007 2:57:56 PM	
AC			StringerR	2/23/2007 2:14:22 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

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Grp Rec Cnt:5  
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3/21/2007 2:29:11 PM

# ICOC Fraction Transfer/Status Report

ByDate: 3/21/2006, 3/26/2007, Batch: '7039579', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
<b>7039579</b>				
AC	Cnt1C	BockJ	2/20/2007 11:24:08	
SC		andersonp	IsBatched	2/9/2007 7:47:34 AM
SC		BockJ	InPrep	2/20/2007 11:24:08 AM
SC		BockJ	Prep1C	2/20/2007 11:48:43 AM
SC		AshworthA	InPrep2	2/27/2007 8:20:42 AM
SC		AshworthA	Prep2C	2/28/2007 12:33:22 PM
SC		AntonsonL	Prep2C	2/28/2007 12:33:35 PM
SC		NelsonT	Cnt1C	3/20/2007 1:41:38 PM
AC		BockJ		ICOC_RADCALC v4.8.26
AC		AshworthA		RICH-RC-5016 Revision 6
AC		AshworthA		RICH-RC-5015 REVISION 4
AC		AshworthA		RICH-RC-5015 REVISION 4
AC		AntonsonL		RICH-RC-5015 REVISION 4
AC		NelsonT		RICH-RC-5058 REV 7
AC		BockJ	2/20/2007 11:48:43	
AC		AshworthA	2/27/2007 8:20:42	
AC		AshworthA	2/28/2007 12:33:22	
AC		AntonsonL	2/28/2007 12:33:35	
AC		NelsonT	3/20/2007 1:41:38 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Rich and Wa.

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